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THE MAGAZINE FOR
GROWING COMPANIES

NOV. 1985
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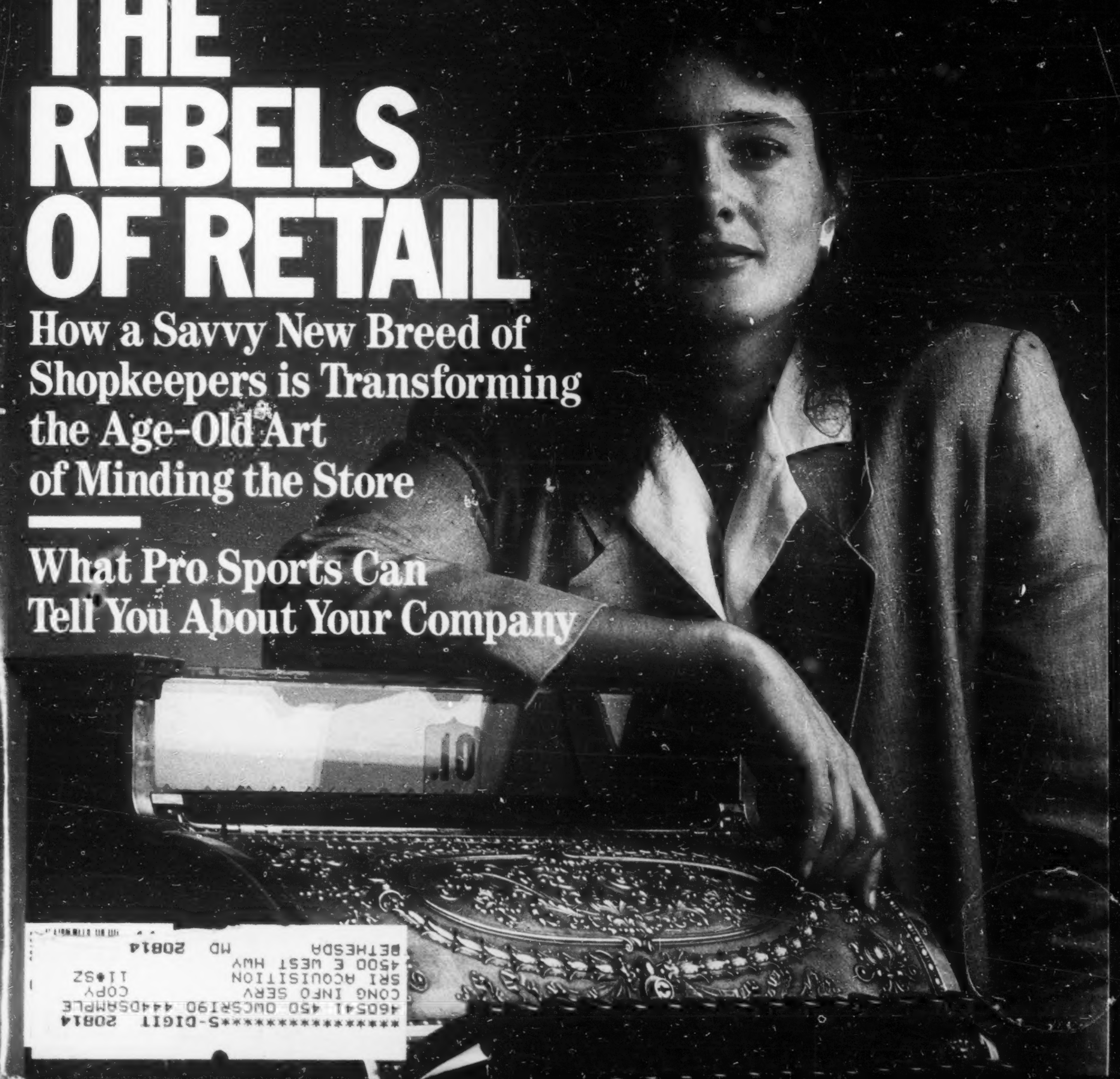
FEAR OF PLANNING:
An Entrepreneur's Guide
to Thinking Ahead

THE REBELS OF RETAIL

How a Savvy New Breed of Shopkeepers is Transforming the Age-Old Art of Minding the Store

What Pro Sports Can Tell You About Your Company



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NOVEMBER 1985

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Photo
Clint Clemens

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DESPERATE DEVELOPERS

Office Space Glut Helps Small Companies

WHEN BOB NEWTON WAS shopping for office space, landlords tried to woo him with all sorts of extras. But he had something practical in mind. "We needed a lot of furniture," recalls Newton, former president of Star Technologies Inc. "And it's difficult to arrange financing for that kind of fixed asset."

MITCH KEZAR/BLACK STAR

Northland took "quite a risk" when it bought office furniture for its tenants, says president James Stuebner.

Newton wound up with $500,000 worth of office furniture. Northland Development Co. of Minneapolis, which owns an office park, bought the furniture and is being repaid at a low interest rate as part of each rent check. "It was quite a risk on our part," says James Stuebner, Northland's president.

Developers in the growing number of cities with too much office space feel that they must take risks to win tenants. Some are so hungry that they are becoming financiers for small companies, which can be desirable tenants if they grow fast.

To lure them, some developers are going beyond routine remodeling and rent abatement, which are fairly common sweeteners. Agreements can now require developers to buy specialized equipment for their tenants or even to take equity in lieu of some rent. "A developer will do just about anything he needs to do, within reason, to get the deal," says Sid Peters, of the National Association of Industrial and Office Parks.

Many developers want to take equity but aren't equipped to evaluate the risk. As a result, some observers say that builders will soon start working with venture capitalists, who can analyze their investment. "Some developers feel that when they see a good opportunity, they may get a higher return through stock than through rent," says Stephen Finn, a real estate lawyer in San Francisco. "But generally, they lack the expertise to do it."

These new deals, all done merely to fill offices, could eventually spell trouble for developers that lack financial savvy. In a buyer's market for office space, says one builder, "it's a sign of desperation on the part of the developers." —*J.H.*

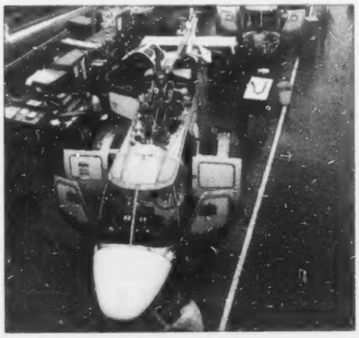
> **"There are lots of people who** have fantasies about business and read books on how to start one. But reading books on how to do a business plan is kind of like reading *The Joy of Sex* and thinking that you know how to create a relationship."
> —Burt Alimansky, managing partner, Alimansky Planning Group

SCORECARD

Lucky Thirteen

In the brutal six-year war to stem the decline of U.S. manufacturing jobs, most states have suffered heavy casualties. From an all-time high in 1979, manufacturing employment had lost 1.7 million jobs by this year. Illinois was the biggest loser, with 324,000 manufacturing jobs disappearing.

Some states, however, resisted the bleakest period for manufacturing since the Great Depression. Thirteen states actually *gained* production jobs. The gains came in some of the same industries that were declining elsewhere: electronics, machinery, and transportation equipment. Increases also occurred in printing and publishing, high technology, and defense.


TOM TRACY/THE STOCK SHOP

Typical of the gainers was Georgia, with a jump of more than 20,000 jobs. Employment rose among automobile and aircraft makers, including General Motors, Ford Motor, and Lockheed. William Kahley, an economist with the Federal Reserve Bank of Atlanta, says that Georgia manufacturers have been buoyed by cheaper labor, energy, and materials, combined with good distribution channels. Kahley adds that Georgia's modern industrial base is another advantage. "Manufacturing plants in the Southeast are newer than those in the Midwest," he says. "They are shut down later in a downturn and opened earlier in an upturn."

Here are the lucky 13, with figures from 1979 to 1985: —*William Souder*

	State	Manufacturing jobs gained	Percentage increase
1.	California	88,100	4%
2.	Florida	79,700	18%
3.	Arizona	42,000	30%
4.	Massachusetts	21,900	3%
5.	Georgia	20,100	4%
6.	Colorado	14,900	9%
7.	Utah	11,100	13%
8.	Virginia	11,100	3%
9.	New Hampshire	9,000	8%
10.	Minnesota	3,200	1%
11.	New Mexico	2,600	8%
12.	Delaware	2,400	4%
13.	Nevada	2,400	13%

together in a scant two weeks, the name was a derivative of the open shipping container-and-dyed-burlap look they improvised out of necessity. Customers found them—one regular shopper was designer Miës van der Rohe's daughter, who often carried Crate stemware home to her papa. (If Gordon were into tattoos, van der Rohe's adage, "God is in the details," would be a strong contender for his chest.) But Gordon didn't always understand what they were up to. He could talk for an hour about a Bengt Bengtner goblet and not seem to care particularly if he sold one, six, or none. About half of the store's initial inventory went out the front door at cost: ignorance, not charity. Crate's revenue curve, moreover, was a picture of consistency: sales hit $8,000 the first month, half that the next, half *that* the next.

Ah, but at least it wasn't *boring*. In fact, the excitement was just starting. In 1965, with their customer base and pricing procedures more solidly established, Crate's proprietors were threatened with loss of their Old Town lease. Gordon again improvised an unusual deal—Crate would put up a new building, lease it back from the landlord, and finally would buy it 15 years later—that foreshadowed a string of advantageous lease arrangements he would hammer out over the next two decades. In 1968, with the company grossing $500,000 a year, Crate opened a second store, Plaza Del Lago, in suburban Wilmette. The third store appeared in Oak Brook in 1971. With each expansion, says Segal, they were "betting the company."

"Crate was highly leveraged all the way," he explains. "We'd never sought outside capital, in part because we wanted to keep the business small and exciting. We really did want to have fun with this thing." Contending that it wasn't until the opening of the Michigan Avenue, Chicago, store in 1975 that "we finally got recognized," he mentions that his first bank wanted Crate to put up half the $300,000 cost of the Oak Brook expansion itself. Their response? "We found another lender."

Crate found other sources of inspiration as well. In 1966, Gordon and designer Lon Habkirk flew to Boston to look over Design Research. Founded by architect Benjamin Thompson, DR, as it was known familiarly, was the archetype of everything Segal aspired to: a clean, contemporary-looking, European-flavored design store specializing in imported housewares and furniture. As described in a Harvard Business School case study, DR "conveyed a glimpse at a lifestyle that was both gracious and yet conducive to the demands of modern society. . . . The results were a shopping experience unique for its time."

Habkirk, creative director of the Crate & Barrel Furniture store in Cambridge, Mass., the only furniture outlet in the company chain, remembers the exposure

BY THE NUMBERS

Segal's Secret: More Bang for the Square Foot

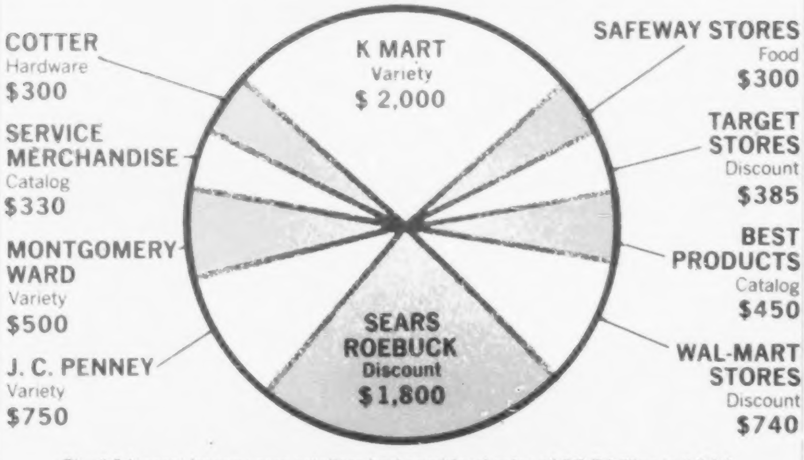
"Housewares is a $42-billion-a-year retail business," says Jeff Adair, editor of *Housewares*, a trade publication in Cleveland, "where individual numbers are very, very hard to come by. Everybody knows what their competitors do, at least in general terms, but they don't like sharing their secrets with the competition."

On an industry-wide basis, it is no secret that the growth trend is in the direction of the discount houses. According to its recent listing of the top 100 housewares retailers nationwide (see chart), *Totally Housewares* found 7 of the 10 biggest sales gainers in the discount category—and only three department stores in the top 25. Supermarkets and drugstores have also become major players in the housewares game. Safeway Stores, for example, boasted 1984 houseware sales of $300 million, and Jack Eckerd did $185 million. Among leaders in other generic outlet categories are Bamberger's department stores ($65 million), Best Products catalog showrooms ($450 million), Sears Roebuck variety stores ($1.8 billion), Cotter hardware stores ($300 million), and Price Club membership clubs ($125 million).

Although Crate doesn't show up on the charts, last year's revenues of $46 million would qualify it for *Totally Housewares'* list, well ahead of such department store notables as Bloomingdale's ($38 million) and Marshall Field ($27 million). Plus, as *Totally Housewares'* survey notes, "There's no indication of such factors as profitability, [inventory] turn, or sales volume per square foot." Translation: Crate's controlled-growth strategy may well make up in quality of sales what it sacrifices in quantity. That growth has been about 20% compounded annually. Nine of the 10 volume leaders averaged an aggregate 25.7% upturn in housewares sales last year, but none were specialty stores concentrating on imported merchandise. Adds Ronald Fippinger of the National Housewares Manufacturers Association, "There's been a great shakeout in so-called gourmet stores. So many of the little retailers can't make it. You walk into Gordon's stores and *know* he is."

Jeff Adair ventures that, as of a couple of years ago, anyway, sales figures in the $100-per-square-foot range were the benchmark for a successful housewares retailer. Despite his own penchant for secrecy, one number Gordon Segal *will* disclose is that last year, Crate's stores took in an average $450 per square foot of selling space—a figure that underscores a longtime contention of his that "if we're not doing three times what the department stores are doing, we're not doing our job."

THE 10 BIGGIES



The 10 largest housewares retailers had combined sales of $7.5 billion in 1984, representing about 18% of the market. (Figures in chart given in millions of dollars.)

ILLUSTRATED CHART BY SCOTT MacNEILL

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SPECIAL ISSUE:
THE INC. 500

500

AMERICA'S FASTEST-GROWING PRIVATE COMPANIES

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DECEMBER 1985

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THE 1985 INC. 500: AMERICA'S FASTEST-GROWING PRIVATE COMPANIES

Five years ago, the companies on this year's INC. 500 were small and struggling, most of them having been founded only a year or two earlier. Today, they are older, maybe wiser—and a lot bigger. They are, in fact, the fastest-growing companies in America.

Who are they? About all they have in common is that they fit no stereotype. They are in high tech, low tech, and no tech; they are manufacturers, retailers, and service providers. They are all over the map, in 43 states and the District of Columbia. They may well include companies you know of, do business with, or compete against.

Each one, moreover, has a story, some of which we tell here. The stories are often inspiring, sometimes cautionary, and always compelling—especially for those with growing companies of their own.

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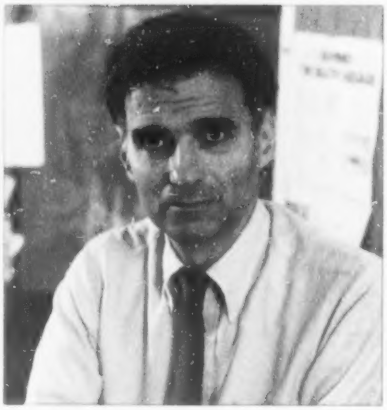

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THE 1985 INC.500: AMERICA'S FASTEST-GROWING PRIVATE COMPANIES

Behind the headlines—the news of last month's gross national product, the endless debates about industrial policy and protective tariffs, the stories of the latest hostile takeover—is a world of economic growth that is almost invisible. The businesspeople who inhabit this world don't make the papers, and they don't make waves on Wall Street. Their companies are mostly young, and are still privately held. It isn't exactly a world of small business—not as the term is usually understood—but it isn't big business, either. Nor is it simply a world of high technology. About all the companies have in common is that they are growing so fast they won't be invisible for long. They are tomorrow's news.

Every year, INC. ranks the standouts of this world: the 500 fastest-growing private companies in America. If you think you must already know these companies, glance through the list. Maybe you recognize Herbalife International, the direct-sales company that is the list's top gainer, if only because of its notoriety (see "Unbridled Growth," page 100). And maybe you know another name or two. But the chances are good that you haven't heard of, say, SpeeDee Oil Change & Tune-Up (#84), founded in 1980 by Gary Copp in Kenner, La. SpeeDee, which advertises that it will change your oil in 9 minutes and tune your car's engine in 30, went from about $110,000 in sales five years ago to nearly $2.5 million last year, and increased its work force almost 10 times. That's growth. But outside of Kenner, it made no headlines.

As a group, the companies on the INC. 500 challenge the stereotypes about the origins of our economic growth. Look, for example, at the number of computer-related businesses on the list. The recent shake-out in the industry doesn't show up on a list that tracks five-year growth, and in fact, some 105 companies (21% of the total) are manufacturers or distributors of computer hardware, software, or systems. But that leaves nearly 400 companies that have little or nothing to do with computers; indeed, most of these 400 aren't high-technology enterprises of any sort. CTEC Inc. (#476) is a manufacturer of ski chair lifts. International Medical Centers Inc. (#40) is a health maintenance organization. Hinkle Metals & Supply Co. (#483) is a distributor of roofing and sheet metal. There are, on the list, 11 publishers, 17 consulting firms, 27 contractors and builders, and an operator of hair and tanning salons.

Service industries are supposed to be the fastest-growing sector of the U.S. economy, and the list supports this belief—up to a point. More than 40% of the companies on this year's INC. 500 perform some kind of service, ranging from American Trans Air Inc. (#7), a 12-year-old airline based in Indianapolis, to Phoenix Advertising, Design & Promotion Inc. (#500), which, despite its name, makes its home in Elm Grove, Wis. Another 25% of the companies, however, are in wholesale or retail distribution, and 26% are engaged in what is supposed to be yesterday's business, manufacturing. INC. 500 companies—and these are companies, remember, that have grown at a minimum of 464% over five years—manufacture floor-cleaning equipment, carbon paper, computer keyboards, hearing aids, waterbeds, fiberglass moldings, and magnetometers. Fayette Manufacturing Corp. (#5) makes windmills and other wind-energy equipment. Weathervane Window Co. (#201) makes wooden windows.

INC. 500 companies reside in 43 states and the District of Columbia. There are, as might be expected, plenty of companies from New England (33), from New York, New Jersey, and Pennsylvania (65), and from Texas (35). And yes, California is far and away the single-state leader, with 101 representatives. But consider the distribution of the remaining 266 companies. Seventy-four of them make their home in a pure Rustbelt region that includes Ohio, Michigan, Illinois, Indiana, and Wisconsin. Eighty-seven are in the southeastern coastal states, Virginia through Florida. The rest are pretty well scattered. Delaware, Kentucky, Louisiana, Nebraska, New Mexico, South Dakota, Utah, Vermont, and Wyoming registered one company each, and the only states that didn't make the list were Maine, Mississippi, Montana, Nevada, North Dakota, Oklahoma, and West Virginia. Alaska and Hawaii counted 3 companies apiece.

The most important measure of economic growth may be the creation of jobs. This is an area in which the U.S. economy, despite its sometimes sluggish performance, has outshone the rest of the world in recent years. American employers created some 24 million jobs from 1974 to 1984, outstripping not only Western European countries (which were actually losing jobs), but also Japan (which was generating them much more slowly).

THE INC. 500 AT A GLANCE

NO. OF COMPANIES BY INDUSTRY			
Service			216
Manufacturing			132
Retail			61
Distribution			60
Construction			31
TOTAL SALES IN 1984 ($MIL.)			$7,376.5
TOTAL SALES IN 1980 ($MIL.)			$521.3
Percent Change (1980–84)			1,315%
AVG. SALES IN 1984 ($MIL.)			$14.8
AVG. SALES IN 1980 ($MIL.)			$1.0
AVG. SALES PER EMPLOYEE, 1984			$185,850
AVG. SALES PER EMPLOYEE, 1980			$78,825
Percent Change (1980–84)			136%
NO. OPERATING AT A PROFIT*			
16% or more	45	1%–5%	250
11%–15%	37	Breakeven	14
6%–10%	124	Loss	30
TOTAL NO. OF EMPLOYEES			
1984			63,580
1980			12,593
Percent increase			405%
AVERAGE NO. OF EMPLOYEES			
1984			127
1980			25
YEAR FOUNDED			
Before 1960	11	1975	23
1960–70	28	1976	48
1971	10	1977	67
1972	12	1978	75
1973	14	1979	117
1974	12	1980	83
FOUNDER IS CEO			437
CEO EQUITY			
100%	156	25%–49.9%	85
90%–99.9%	26	1%–24.9%	47
51%–89.9%	109	0%	14
50%	59	NA	4
NO. ACQUIRING OTHER COMPANIES (1980–84)			103

*Over the past five years, 159 have seen earnings grow, 124 have seen their earnings drop, and 207 have stayed the same.

Many of these jobs came from the growth of small, private companies like those on the INC. 500. Five years ago, the companies on this year's list employed a total of roughly 12,600 people. In 1984, they employed nearly 63,600, an overall increase of more than fivefold. The average company in this period added 100 new workers. To be sure, not all the jobs were new positions. Employment leader Pedus International Inc., for example (Pedus was last year's #1 company and ranks #101 this year), added 5,600 employees over five years, thanks in part to its five acquisitions. National Health Care Affiliates Inc. (#23) added 1,517 new employees, partly through its 14 acquisitions. But Hall Financial Group (#208) increased its work force from 835 to 2,150 with only a single acquisition (which accounted for only 19 workers), and Solectron Corp. (#144), an electronics manufacturer, went from 150 employees to more than 2,000 with no acquisitions at all. Overall, four out of five companies on the list grew without acquiring any other company.

Job creation and productivity are often opposite sides of the same coin. Capital equipment that allows a company to maintain output while cutting its work force may lead to a loss of jobs even while it boosts productivity. Critics charge, moreover, that America's job-generation record has merely reflected the replacement of high-productivity, high-wage jobs by low-productivity, low-wage jobs.

Where the 500 are concerned, however, the startling growth in employment has been accompanied by an equally dramatic increase in labor productivity. Average sales per employee rose from $78,825 in 1980 to $185,850 in 1984, a gain of significantly more than 100%. Median sales per employee—the point on the list at which half the companies had more, half had less—were about $106,000 in 1984 as compared with about $47,000 in 1980, also a better-than-double jump. The productivity leader for 1984 is Corinthian Communications Inc. (#432), a media buyer for advertisers and ad agencies, with $78 million in sales for its 18 employees. The 10 other companies with labor productivity of more than a million dollars run the gamut from All American Hero Inc. (#15), a fast-food franchisor, to David Langer & Co. (#195), a wholesale distributor of semiconductors. At the low end, with sales per employee of less than $10,000 (and thus, one suspects, a lot of part-time employees), are Pedus International, which provides commercial cleaning and security services, and Booth Organization Inc. (#338), another building-maintenance company.

For all that the INC. 500 may tell us about growth, it's also a list that can be interesting on its own terms—particularly to the entrepreneur or chief executive officer who would like someday to see his or her company on the list. Want to compare your company's characteristics with those of this year's winners? Here are some of the key variables.

Sales: To be eligible for inclusion, companies on the list must have recorded at least $100,000 and no more than $25 million in sales in 1980, the base year for the listing. And they obviously have to have grown fast since then. Given those constraints, the size of the companies on the list spans a wide range. The sales leader, Le Beacon Presse (#35), did two thirds of a billion dollars in business last year, up from $158 million in 1983 and $15.7 million in 1980. Another five companies—which, interestingly, have nothing else in common—did more than $100 million each, putting them firmly in the ranks of America's medium-size businesses. At the other end of the spectrum, 16 companies registered less than $1 million in sales. The smallest of all, Alarmtronics Security Systems Inc. (#449), a 13-employee company founded in 1979, with sales of $622,000. Overall, the median size of an INC. 500 company in 1984 was about $6.2 million in sales.

Employment: Ranked by number of employees, the INC. 500 range all the way from Pedus International, with 7,000 workers, down through Lawrenceville Press (#294), Help-U-Sell (#340), and Underwriters Financial of Florida (#480), each with 3 employees, and finally to tiny Central Petroleum Transport (#445), a common-carrier trucker that managed to do nearly $1 million in business last year with only 2 full-time employees. How does Central Petroleum do it? CEO Larry Crabb and his associate Milton Abraham contract out anything they can't handle themselves, including the office work and dispatching. "We're totally owner-operated to prevent strikes," says Crabb with a smile. "There haven't been any strikes so far, so I guess it works."

The median company on this year's list had 57 employees.

Age of company: Since a place on the INC. 500 requires a five-year sales history, no company on the list could have been founded more recently than 1980. Given that limitation, most are relatively young: 83 were founded in 1980, and the median founding date is 1978. But a surprising number aren't such spring chickens: 34 companies were founded before 1970, and 11 of these date back to before 1960. The oldest company on the list, like last year, is N. Chasen & Son Inc. (#435; see page 69). Four others have been in business since the 1940s. R. L. Drake Co. (#380) goes back to 1942; it began building military equipment, then after the war it got into amateur radio and marine communications; now it manufactures satellite communications equipment. Executone Telecommunications Inc. (Pa.), rated #258, was just Executone of Reading Inc. when it was founded in 1945. Starting out by servicing hospital and business intercoms, it now sells and services telephone, hospital, and paging equipment. Paulsel Lumber Co. (#174), which also started business in 1945, and TravelCenter Inc. (#369), which was founded a year later, have only recently embarked on a fast-growth trajectory. Why did they wait so long? For Paulsel, the turning point was when the company focused all of its attention on its wholesale operation; for TravelCenter, it was a series of maneuvers allowing the agency to take full advantage of airline deregulation.

TOP 10 PERFORMERS: TOTAL SALES

Rank	Company (INC. 500 rank)	1984 sales ($000)
1	Le Beacon Presse (35)	$666,666
2	Herbalife International (1)	423,093
3	International Medical Centers (40)	235,000
4	Softsel International (4)	165,802
5	American Trans Air (7)	139,456
6	TravelCenter (369)	115,294
7	Microsoft (163)	97,478
8	Sharper Image (400)	85,598
9	ABC Supply (2)	82,269
10	Drug Emporium (320)	79,658

TOP 10 PERFORMERS: SALES PER EMPLOYEE

Rank	Company (No. of employees)	Sales per employee
1	Corinthian Communications (18)	$4,333,333
2	Ugly Duckling Rent-A-Car (24)	2,066,667
3	Le Beacon Presse (398)	1,675,040
4	First National Capital (12)	1,485,917
5	World Leasing (13)	1,413,308
6	All American Hero (8)	1,372,125
7	Bennett Funding Group (27)	1,244,778
8	Amplicon (28)	1,244,286
9	David Langer (7)	1,157,571
10	Herbalife International (400)	1,057,733

TOP 10 PERFORMERS EMPLOYMENT GROWTH

Rank	Company (No. of employees)	New employees 1980-84	Percent growth
1	ABC Supply (228)	227	22,700%
2	Softsel International (400)	398	19,900
3	Institutional Finan. Svcs. (609)	601	7,513
4	Coal Products (135)	133	6,650
5	Micro Electronics (119)	117	5,850
6	Teleconnect (640)	628	5,233
7	Fayette Manufacturing (160)	157	5,233
8	First Software (253)	248	4,960
9	Advanced Input Devices (702)	687	4,580
10	General Microcomputer (275)	268	3,829

Role of the CEO: All but 63 of the companies on this year's list were founded by their current CEOs. He or she—there are 23 women CEOs on the list—holds 100% of the equity in 156 of the companies and more than 50% in 135 others. Surprisingly, though, there are 14 companies in which the head man or woman holds no equity at all. The reasons vary, but in many cases it's because the CEO is relatively new to the company, and the founder hasn't yet ceded any stock. In other instances, the founder has remained as CEO but has passed on the stock to other family members.

If you want to be the head of an INC. 500 company, it may help to have a famous name, even one that's spelled differently from your namesake's. The head of Argosy Electronics Inc. (#401) is named Ronald Regan. The CEO of Local Data Inc. (#442) is named Robert E. Lee.

Profitability: INC. doesn't request exact profitability figures from companies on the list. We do, however, ask for categories of profitability (1%–5%, 6%–10%, and so on). Despite the companies' fast growth, there is money being made. Forty-five companies on the list—close to 10% of the total—registered aftertax income of 16% or more of sales for 1984. (More than half of these companies reported profits in the same category for 1980.) Thirty-seven companies fell into the 11%–15% category, and 124 earned from 6% to 10% of sales. Far and away the biggest single category was profits from 1% to 5% of sales, while 43 companies reported break-even or losing operations. Ninety-four of the 110 companies that reported losses in 1980 were profitable in 1984; only 14 went in the other direction.

Growth: The typical INC. 500 company on this year's list registered a 900% growth rate in sales over the five-year period, or a compound annual growth rate of 78%. The leader, Herbalife International, went from $386,000 in 1980 sales to an astonishing $423 million in 1984, growing by a factor of more than a thousand. Nine other companies multiplied their sales more than a hundredfold. Even to make the list, a company had to rack up a 464% five-year growth rate, or 54% a year compounded. To put these numbers in perspective: If you doubled your company's sales every year, you would register a 1,500% growth rate over five years. One hundred twenty-four companies on the list did better than that.

How long can a company continue to grow at such a rate? To judge from past years, a fair number of companies will somehow maintain that pace and turn up on next year's listing (see "Sonic Air's Boom Goes Bust," page 110). A few will stay on the list for three or even four years. Others will sell out, go public, or go broke. Most, whether they are eligible for future 500 lists or not, will keep on growing.

The only thing they can't expect to do is keep on growing and remain invisible.

—John Case

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Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range* '84	Profit range* '80	No. of employees '84	No. of employees '80	Acquisitions '80-'84	Date founded
1. Herbalife International Los Angeles, CA Health & nutrition prods.	109,510%	$423,093	$386	C	D	400	20	0	1980
2. ABC Supply (3) Beloit, WI Distr. building supplies	76,075	82,269	108	D	D	228	1	8	1979
3. First Software Lawrence, MA Distr. software	52,996	58,406	110	D	F	253	5	1	1980
4. Softsel International Inglewood, CA Distr. software	50,296	165,802	329	D	F	400	2	0	1980
5. Fayette Manufacturing Tracy, CA Wind energy development	41,866	63,789	152	C	F	160	3	0	1977
6. SCA Redmond, WA Suntanning equip. & supplies	28,871	35,055	121	A	F	120	10	0	1980
7. American Trans Air Indianapolis, IN Airline	20,871	139,456	665	D	D	729	84	1	1973
8. Video Products Distributors (40) Sacramento, CA Distr. videotapes	19,815	56,758	285	D	D	80	3	0	1980
9. Central Massachusetts Health Care Worcester, MA HMO	13,102	16,634	126	E	F	46	4	0	1979
10. North American Roofing Carmel, IN Roofing contractor	10,880	11,200	102	D	D	200	12	0	1980
11. Dow Industries (33) Laguna Hills, CA Electromagnetic engineering	9,615	21,956	226	D	E	68	3	0	1972
12. Broderbund Software San Rafael, CA Software publisher	9,290	10,141	108	D	C	72	4	1	1980
13. Advanced Input Devices Coeur d'Alene, ID Mfr. keyboards & keypanels	9,059	26,377	288	F	F	702	15	1	1979
14. Gateway Computer Systems Huntington Beach, CA Computer systems svcs.	8,948	38,724	428	D	F	258	13	0	1979
15. All American Hero Ft. Lauderdale, FL Fast-food franchisor	8,682	10,977	125	A	E	8	3	0	1980
16. Micro Electronics Columbus, OH Computer department store	8,363	21,157	250	C	A	114	2	0	1980
17. Xscribe La Jolla, CA Computer transcription systs.	7,192	19,760	271	D	B	289	12	0	1978
18. Action Equipment Londonderry, NH Retailer/leasor construction equip.	7,013	7,398	104	D	F	68	3	0	1980
19. Bennett Funding Group Syracuse, NY Equipment leasing	6,902	33,609	480	D	D	27	5	1	1977
20. General Microcomputer (8) South Bend, IN Computer sales	6,867	48,561	697	D	[illegible]	275	7	3	1978
21. CommTek (23) Boise, ID Publisher	6,723	11,122	163	D	F	103	3	0	1977
22. Proto Systems of Atlanta Alpharetta, GA Mfr. printed circuit boards	6,146	13,803	221	A	E	183	19	1	1979
23. National Health Care Affiliates (14) Buffalo, NY Nursing home mgmt.	6,026	32,899	537	D	D	1,565	48	14	1977
24. Snappy Car Rental (27) Beachwood, OH Car rental	5,722	54,090	929	D	D	725	60	0	1973
25. Island Water Sports Deerfield Beach, FL Retail water-sports equip.	5,519	6,068	108	A	A	24	2	0	1979

*INC. estimate: A. 16% or more; B. 11% to 15%; C. 6% to 10%; D. 1% to 5%; E. Breakeven; F. Loss.

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Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range* '84	Profit range* '80	No. of employees '84	No. of employees '80	Acquisitions '80-'84	Date founded
26. **TRC Temporary Services** Atlanta, GA Temporary-help svc.	5,406 %	$14,755	$268	D	F	71	9	1	1980
27. **Data 3 Systems** Santa Rosa, CA Computer software	5,393	6,207	113	A	E	39	4	0	1980
28. **Teleconnect** Cedar Rapids, IA Telecommunications	5,156	45,463	865	C	D	640	12	0	1979
29. **American Calculator & Computer** Birmingham, AL Computer retailer	5,018	8,035	157	D	F	48	3	0	1980
30. **Richard Young Office Products** Ft. Lauderdale, FL Distr. computer accessories	4,874	6,914	139	D	F	12	4	0	1979
31. **Southern Electrical Distributors** West Covina, CA Distr. electrical supplies	4,820	10,185	207	D	D	40	4	2	1980
32. **Hiatt Agency** (77) Miamisburg, OH Insurance programs	4,550	5,626	121	D	F	55	6	0	1968
33. **El Camino Resources** Sherman Oaks, CA Retail/lease computers	4,215	27,055	627	C	C	26	4	0	1979
34. **Computer Technology Associates** Englewood, CO Computer systs. engineering	4,148	12,318	290	D	D	191	5	0	1979
35. **Le Beacon Presse** (212) Seattle, WA Publish reference books	4,146	666,666	15,700	A	A	398	147	18	1975
36. **United Personal Computer** (21) Wallingford, CT Retail computers	4,013	38,129	927	D	D	150	8	1	1977
37. **Allenbach Industries** (90) Carlsbad, CA Computer software duplication	3,984	4,329	106	F	F	63	4	0	1978
38. **Creative Management Systems** (85) McLean, VA Telecommunications software	3,959	11,285	278	A	A	66	7	0	1976
39. **Shader's China Doll** Newark, DE Mfr. porcelain dolls	3,949	4,130	102	C	A	100	5	1	1979
40. **International Medical Centers** (183) Miami, FL HMO	3,817	235,000	6,000	C	F	725	45	0	1977
41. **Coal Products** Tazewell, VA Mfr. mine roof prods.	3,800	11,700	300	C	B	135	2	1	1976
42. **First National Capital** Birmingham, MI Equipment leasing	3,793	17,831	458	C	D	2	2	0	1980
43. **Computer Strategies** Grand Rapids, MI Manufacturing software	3,771	4,103	106	C	F	52	3	0	1980
44. **Miraflores Designs** San Francisco, CA Mfr. hotel amenities	3,766	6,843	177	D	D	20	4	0	1980
45. **DPCS** Newport Beach, CA Computer programming svcs.	3,661	4,589	122	D	E	48	2	0	1977
46. **Masterclean of North Carolina** (38) Winston-Salem, NC General contractor	3,626	4,322	116	C	C	16	4	0	1976
47. **Turner Brothers Construction** Easton, MA General contractor	3,602	6,219	168	D	D	70	21	0	1979
48. **Software Corporation of America** Herndon, VA Systems software	3,597	4,732	128	B	F	45	3	0	1980
49. **Computer Dynamics** (81) Virginia Beach, VA Computer engineering svcs.	3,531	5,592	154	C	D	289	12	0	1979
50. **S.R.S. Network** New York, NY Data processing	3,443	3,543	100	D	A	53	4	0	1978
51. **Star Software Systems** Torrance, CA Microcomputer software	3,434	3,569	101	F	D	50	3	0	1980
52. **Accountants Microsystems** Bellevue, WA Supplier microcomputer syst. & software	3,433	9,893	280	F	F	138	8	2	1980
53. **R & D Systems** Colorado Springs, CO Distr. computers	3,369	9,157	264	D	A	40	3	0	1979
54. **Sevenson Construction** Niagara Falls, NY Construction & development	3,354	56,924	1,648	D	D	75	4	0	1977
55. **Communications Consultants** Virginia Beach, VA Advertising	3,344	4,684	136	D	D	22	3	0	1980
56. **Vista Technology** San Marcos, CA Distr. computer prods.	3,270	11,289	335	D	B	35	2	0	1979
57. **Biesemeyer Manufacturing** (113) Mesa, AZ Mfr. woodworking equip.	3,243	3,945	118	A	A	58	8	0	1978
58. **Unified Mortgage** (79) Cupertino, CA Mortgage banking	3,160	29,305	899	C	C	252	35	0	1972
59. **F.A. Components** Elmhurst, NY Distr. microcomputer peripherals	3,055	18,928	600	D	D	36	2	0	1980
60. **ComDesign** (114) Goleta, CA Mfr. communications equip.	2,857	8,456	286	F	F	97	20	0	1977

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Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range*		No. of employees		Acquisitions '80-'84	Date founded
				'84	'80	'84	'80		
61. **Varitel Video** San Francisco, CA Video services	2,776 %	$2,962	$103	B	C	40	2	0	1979
62. **Crosby Vandenburgh Group** Boston, MA Cable TV guides	2,756	9,053	317	D	F	60	10	0	1980
63. **K.O. Swanson** Milpitas, CA Construction svcs.	2,746	20,547	722	D	D	76	4	0	1980
64. **SIR** Skokie, IL Database mgmt.	2,728	4,100	145	C	F	40	8	0	1976
65. **Captive-Aire Systems** Raleigh, NC Mfr. ventilation equip.	2,682	4,117	148	D	C	60	5	0	1979
66. **Computer Town** Salem, NH Retail computers	2,625	17,438	640	D	C	50	4	0	1977
67. **Birch Research** Coral Springs, FL Media research	2,621	4,000	147	D	A	60	3	1	1978
68. **Support Systems International (SC)** Charleston, SC Mkt. medical therapy	2,603	47,057	1,741	A	C	791	47	4	1976
69. **Gamefield Concept** San Francisco, CA Mfr. & mkt. fitness programs	2,591	6,404	238	A	C	40	2	0	1979
70. **Basic Computer** (82) Akron, OH Computer retail chain	2,584	28,724	1,070	D	C	170	10	1	1977
71. **San Diego Design** Santee, CA Mfr. home entertainment systs.	2,568	5,682	213	D	A	137	6	0	1980
72. **GNP** (150) Pasadena, CA Audio/video computer systs.	2,486	2,715	105	C	D	12	3	0	1977
73. **EC** Oak Ridge, TN Construction mgmt.	2,479	4,049	157	C	F	169	6	0	1977
74. **Leland A. Wolf & Associates** (4) Foster City, CA Employee benefit plan svcs.	2,465	31,086	1,212	D	D	37	9	0	1979
75. **JL Associates** Hampton, VA Management svcs.	2,449	5,838	229	D	F	309	15	0	1979
76. **Matrix Organization** King of Prussia, PA Data processing svcs.	2,443	4,526	178	C	C	87	4	0	1980
77. **Jiffy Lube International** Baltimore, MD Franchisor oil change	2,417	6,016	239	D	F	56	25	5	1979
78. **Commonwealth Equity Services** Newton, MA Securities firm	2,405	2,881	115	D	D	90	7	0	1979
79. **Elkington & Keltner Group** Memphis, TN Development & construction	2,374	22,565	912	D	B	65	15	0	1976
80. **Sparta** Huntsville, AL Government research	2,301	9,460	394	D	C	144	17	0	1979
81. **Super 8 Motels** Aberdeen, SD Economy motel chain	2,239	24,235	1,036	D	D	114	19	0	1973
82. **Southern Office Furniture Distributors** Greensboro, NC Distr. office furniture	2,213	5,782	250	D	F	44	7	0	1979
83. **Clark Manufacturing** Chino, CA Mfr. plastic products	2,183	9,178	402	D	D	130	20	0	1977
84. **SpeeDee Oil Change & Tune-Up** Kenner, LA Oil change	2,158	2,484	110	D	F	56	6	0	1980
85. **Viking Electric** Santa Clara, CA Electrical contractor	2,151	17,510	778	D	D	150	25	0	1978
86. **Metro Information Services** (111) Virginia Beach, VA Computer consultants	2,149	4,048	180	C	C	94	6	0	1973
87. **Pioneer/Eclipse** (108) Sparta, NC Mfr. floor cleaning equip.	2,129	7,377	331	C	E	65	10	0	1978
88. **Alamo Learning Systems** (55) Walnut Creek, CA Software training systs.	2,125	6,786	305	A	C	25	5	1	1979
89. **Gulf States Mortgage** (95) Atlanta, GA Mortgage banking	2,101	5,878	267	D	B	106	9	0	1961
90. **Creative Web Systems** Inglewood, CA Direct-response printing	2,095	6,606	301	D	F	48	9	0	1980
91. **Staubach** Dallas, TX Commercial real estate	2,082	2,793	128	B	F	55	8	0	1977
92. **Northland Environmental** (41) Burbank, CA Renewable energy	2,057	4,810	223	D	C	45	3	0	1975
93. **ATCOM** (161) Research Triangle Park, NC Mfr. business telephone systems	2,024	3,590	169	C	F	42	5	0	1979
94. **Connecticut Radio Network** (160) Hamden, CT Advertising	2,015	2,771	131	D	F	20	5	0	1971
95. **Artesia Waters** San Antonio, TX Mfr. mineral water	1,989	2,340	112	B	F	17	5	0	1980

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Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range*		No. of employees		Acquisitions '80-'84	Date founded
				'84	'80	'84	'80		
96. **E & A Industries** (191) Indianapolis, IN Mfr. chemicals	1,975 %	$23,121	$1,114	C	C	110	13	2	1977
97. **American Leisure Industries** (32) Lanham, MD Travel company	1,974	6,970	336	D	F	59	20	0	1978
98. **Quality "S" Manufacturing** Phoenix, AZ Mfr. trailer hitches	1,963	2,702	131	A	B	50	5	0	1977
99. **Vanguard Technologies** (66) Fairfax, VA ADP systs. development	1,938	15,587	765	C	C	314	40	0	1979
100. **Magnetech Specialty** Beaumont, TX Specialty industrial equip.	1,923	2,165	107	A	A	11	1	0	1980
101. **Pedus International** (1) Los Angeles, CA Building & security svcs.	1,919	68,994	3,417	D	D	7,000	1,400	5	1979
102. **Systems of the Future** Morristown, NJ Turnkey computer systs.	1,884	2,222	112	F	F	18	5	0	1979
103. **Robec** (10) Montgomeryville, PA Distr. computers	1,876	27,589	1,396	D	D	45	6	0	1978
104. **S-R Premier** Addison, IL Mfr. printing ink	1,869	4,883	248	C	F	13	4	0	1979
105. **Oracle** (61) Menlo Park, CA Data processing	1,857	13,017	665	B	C	154	10	2	1977
106. **Woodsmith Publishing** Des Moines, IA Magazine publisher	1,843	2,254	116	F	F	18	2	0	1978
107. **Computer Communications Specialists** Norcross, GA Data processing	1,843	4,818	248	C	B	61	8	0	1977
108. **Michael Anthony Jewelers** New York, NY Gold jewelry mfr.	1,823	29,996	1,560	B	D	225	60	0	1977
109. **DISC** Indianapolis, IN Services to auto dealers	1,819	6,507	339	C	A	87	6	2	1976
110. **Miami Depot** Hialeah, FL Distressed merchandise resale	1,799	7,579	399	D	C	135	4	1	1976
111. **Diversified Data** Springfield, VA Software development	1,722	4,337	238	D	D	125	8	0	1980
112. **Marcon Marketing Services** New York, NY Marketing svcs.	1,688	3,022	169	C	C	23	5	0	1979
113. **Integrated Systems** Palo Alto, CA Software development	1,681	2,333	131	C	C	23	5	0	1980
114. **Institutional Financing Services** (31) Benicia, CA Mkt. school prods.	1,674	39,679	2,237	B	F	609	8	0	1979
115. **Dot Printer** Irvine, CA Lithographers	1,656	12,820	730	D	F	95	23	0	1980
116. **Southwall Technologies** Palo Alto, CA Mfr. thin film prods.	1,633	6,411	370	F	F	89	20	0	1979
117. **Claremont Financial Services** Boston, MA Real estate development	1,629	26,991	1,561	A	C	130	52	0	1968
118. **DIS** Bellingham, WA Communication network software	1,609	4,341	254	D	F	105	5	0	1980
119. **Northern Lights Computers** Berkeley, CA Distr. computer systems	1,602	6,639	390	E	C	18	2	0	1980
120. **Profile Industries** (217) Pompano Beach, FL Mfr. vertical blind systs.	1,583	8,467	503	D	F	80	35	0	1978
121. **Burdeshaw Associates** Bethesda, MD Industry consultants	1,562	1,961	118	C	A	16	3	0	1979
122. **Flextronics** Newark, CA Mfr. circuit boards	1,546	50,940	3,095	D	D	1,000	250	0	1969
123. **Vanguard Groups International** (137) Houston, TX Real estate development	1,532	19,800	1,213	B	B	100	14	1	1978
124. **Spectrum Computers** Southfield, MI Retail computers	1,521	1,832	113	D	F	8	2	0	1978
125. **Life-Link International** Jackson, WY Sporting goods equip.	1,480	2,023	128	C	F	28	6	0	1978
126. **Western Extrusions** Carrollton, TX Aluminum extrusion	1,479	25,421	1,610	C	F	222	22	0	1979
127. **VR Business Brokers** Needham, MA Business broker	1,466	7,534	481	D	F	35	23	0	1979
128. **Financial Services Group** Greenville, SC Financial planning	1,465	1,612	103	A	A	21	2	0	1979
129. **Mgmt. Employee Group Admin.** (176) Milwaukee, WI Employee benefits admin.	1,463	37,019	2,369	D	D	110	14	0	1974
130. **Century Marketing** Bowling Green, OH Mfr. custom labels	1,459	4,630	297	D	F	163	15	0	1980

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131. Executone Communications/CT East Hartford, CT Telephone installation/svc.	1,455 %	$4,697	$302	D	D	62	5	0	1980
132. Blagge Enterprises (207) Rancho Cordova, CA Distr. recording tapes & appliances	1,453	8,276	533	D	D	10	6	0	1977
133. Nassau-Suffolk Computer Syosset, NY Computer sales	1,451	13,695	883	D	D	72	8	0	1978
134. Sigal Companies (51) Washington, DC General contractor	1,444	37,107	2,404	E	D	90	35	0	1976
135. ComputerLand of Hawaii Honolulu, HI Retail computers	1,436	13,913	906	D	D	65	10	0	1978
136. Consolidated Group (94) Framingham, MA Employee benefits plans	1,435	29,574	1,927	D	D	304	25	1	1971
137. U.S. Robotics (132) Skokie, IL Data communications equip.	1,430	21,597	1,412	D	D	188	5	0	1976
138. Alloy Computer Products Framingham, MA Mfr. of computer peripherals	1,427	20,379	1,335	C	B	102	21	1	1979
139. Stravina Canoga Park, CA Mfr. stationery	1,425	5,932	389	D	D	51	5	0	1979
140. R&L Data Systems Idaho Falls, ID Retail computers	1,422	5,054	332	D	C	43	5	0	1979
141. Akal Security Santa Cruz, NM Security svcs.	1,421	1,825	120	D	D	140	8	0	1980
142. Deerfield Construction Pittsburgh, PA Residential development	1,409	1,796	119	C	B	6	2	0	1979
143. Quality Temp Bloomington, MN Temporary employment agency	1,407	3,527	234	C	F	11	2	0	1980
144. Solectron (54) San Jose, CA Mfr. electronic svcs.	1,401	54,051	3,600	D	C	2,000	150	0	1977
145. Interact (87) Asheville, NC Distr. computer prods.	1,398	15,162	1,012	F	D	47	30	0	1978
146. Kronos Waltham, MA Time accounting systs.	1,391	8,959	601	F	F	147	27	0	1977
147. Champion Awards (223) Memphis, TN Trophies & awards	1,390	2,160	145	C	C	24	4	1	1970
148. Computerized Lodging Systems Long Beach, CA Reseller computer systs.	1,388	4,880	328	B	F	21	7	0	1975
149. Computer Options Minneapolis, MN Sales/leasing IBM computers	1,381	23,692	1,600	D	D	25	2	0	1980
150. Watkins Manufacturing Carlsbad, CA Whirlpool spas	1,379	16,805	1,136	C	D	175	34	0	1977
151. JWI (110) Holland, MI Mfr. filtration equip.	1,379	10,219	691	C	A	60	3	0	1977
152. Star Video Entertainment Jersey City, NJ Distr. videocassettes	1,371	42,641	2,898	D	D	120	9	0	1979
153. Royal Waterbeds (56) Ellisville, MO Waterbeds	1,370	6,628	451	C	C	110	20	0	1977
154. R & E Electronics (237) Wilmington, NC Communications systs.	1,369	3,687	251	D	B	62	12	0	1952
155. Petrocomp Systems Houston, TX Computer prods. & svcs.	1,359	3,107	213	D	A	57	9	0	1979
156. Hanley-Wood (206) Washington, DC Magazine publishing	1,354	9,396	646	D	D	40	5	3	1976
157. Schreiber Trussville, AL Wastewater treatment equip.	1,353	7,396	509	C	F	70	3	0	1980
158. CardioData Northboro, MA Mfr. medical electronics	1,345	2,297	159	D	C	20	3	0	1971
159. Sunbelt Express Waco, GA Trucking company	1,338	7,334	510	C	F	115	16	0	1980
160. Kappler (88) Guntersville, AL Disposable industrial clothing	1,336	10,370	722	D	D	150	50	0	1976
161. Great Lakes Micrographic (117) Kalamazoo, MI Specialty photo films	1,334	7,113	496	C	C	25	8	0	1977
162. Computer Alliance (18) Farmington Hills, MI Reseller computer systs.	1,333	11,077	773	D	D	135	35	1	1979
163. Microsoft (80) Bellevue, WA Microcomputer software	1,310	97,478	6,914	A	A	608	75	0	1974
164. Discovery Toys (53) Pleasant Hill, CA Educational toys	1,309	32,244	2,288	D	D	150	30	0	1977
165. Dynamark Security Centers Hagerstown, MD Security equipment	1,301	5,267	376	D	D	26	4	1	1977

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				'84	'80	'84	'80		
166. **Engineered Data Environments** Pleasanton, CA Computer svc.	1,300 %	$9,718	$694	D	F	18	4	0	1980
167. **Logistix/Logo** Milpitas, CA Mfr. software	1,291	11,209	806	D	A	40	6	0	1973
168. **Royal Silk** (57) Clifton, NJ Retail silk fashions	1,279	21,650	1,570	D	D	100	20	0	1978
169. **Zenger-Miller** (256) Cupertino, CA Mgmt. training systs.	1,271	14,013	1,022	D	D	115	9	0	1977
170. **Aruvil International** New York City, NY Import steel products	1,268	6,074	444	D	D	9	3	0	1977
171. **Physicians Weight Loss Centers** Akron, OH Weight loss centers	1,258	5,230	385	A	A	24	6	0	1979
172. **Lender's Service** (154) Pittsburgh, PA Real estate appraisals	1,225	26,547	2,004	D	F	342	119	0	1967
173. **Compact Performance** San Ramon, CA Auto parts	1,224	1,496	113	C	F	5	2	0	1977
174. **Paulsel Lumber** (186) Ft. Worth, TX Wholesale lumber	1,221	10,950	829	C	A	16	12	0	1945
175. **Carbide Technologies** (107) Fraser, MI Mfr. carbide prods.	1,215	5,472	416	A	E	40	16	0	1979
176. **Ugly Duckling Rent-A-Car System** (129) Tucson, AZ Car rental	1,209	49,600	3,789	D	D	24	12	0	1978
177. **Wegener Communications** Norcross, GA Audio & data communications	1,193	6,453	499	C	B	80	20	0	1978
178. **Dataprint** Charlotte, NC Retail computer	1,187	2,935	228	D	A	8	3	0	1978
179. **Precision Connector Designs** Winchester, MA Mfr. electronic connectors	1,186	5,465	425	D	F	130	13	2	1977
180. **Elographics** (149) Oak Ridge, TN Mfr. computer peripherals	1,185	4,406	343	A	B	81	12	0	1971
181. **Publications & Communications** (381) Austin, TX Computer publications	1,168	2,422	191	C	A	33	5	0	1979
182. **Advanced Information Management** (49) Boston, MA Computer software & svcs.	1,153	4,134	330	F	F	114	17	0	1978
183. **Zycor** Austin, TX Geologic modeling software	1,141	3,661	295	A	A	52	5	0	1979
184. **Comstock Leasing** San Mateo, CA Equipment leasing	1,139	1,499	121	A	A	12	2	1	1980
185. **Roberts Welding Contractors** (456) Winterville, NC Industrial contractor	1,136	3,869	313	C	C	107	25	0	1980
186. **Baker Communications** (157) Houston, TX Training & development	1,135	3,173	257	A	A	18	3	0	1979
187. **Aim Executive** Toledo, OH Executive recruiter	1,134	2,468	200	A	B	29	18	0	1977
188. **Philip Crosby Associates** Winter Park, FL Management consulting	1,104	20,034	1,664	B	D	128	15	0	1979
189. **Temporary Solutions** Manassas, VA Temporary-employment agency	1,096	1,543	129	D	F	12	2	0	1980
190. **Meridian** (172) Falls Church, VA High-technology consultant	1,089	5,493	462	D	D	61	25	1	1978
191. **Weldon Electronics** (100) Plymouth, MN Retail computers	1,084	25,749	2,174	D	F	111	25	0	1978
192. **Tech Data** Clearwater, FL Distr. computer prods.	1,082	20,608	1,744	D	D	46	13	0	1974
193. **Markdata** (48) Pittston, PA Direct marketing	1,068	11,547	989	B	B	350	50	1	1977
194. **Evergreen Foods** Augusta, GA Packaged juices	1,066	10,434	895	D	F	58	8	0	1980
195. **David Langer** Los Angeles, CA Distr. semiconductors	1,063	8,103	697	D	D	7	6	0	1968
196. **US Signs** Houston, TX Mfr. electronic signs	1,058	2,166	187	D	F	30	3	1	1980
197. **Winters Electric** Juneau, AK Electrical contractor	1,054	2,355	204	D	C	35	5	0	1979
198. **Native Sun Energy Systems** Petaluma, CA Solar heating contractor	1,054	2,388	207	E	E	50	7	0	1978
199. **Infotec Development** (74) Costa Mesa, CA Computer systs. engineering	1,051	7,540	655	C	F	115	14	0	1978
200. **Information Builders** (171) New York, NY Mfr. computer software	1,049	51,334	4,469	A	A	325	58	0	1975

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201. Weathervane Window (76) Kirkland, WA Mfr. wooden windows	1,046 %	$4,995	$436	D	D	60	10	0	1979
202. Wabash Computer Systems Irvine, CA Retail computers	1,036	25,000	2,200	D	C	121	12	2	1979
203. EM Electronics Yeadon, PA Mfr. cable TV parts	1,029	1,931	171	E	D	7	2	0	1980
204. Databank (156) Phoenix, AZ Retail computers	1,027	19,482	1,728	D	D	120	11	0	1978
205. Glen Ivy Financial Group Corona, CA Real estate development	1,019	8,535	763	C	E	150	30	2	1975
206. Executone of Central Florida (124) Ft. Lauderdale, FL Telephone interconnect	1,018	4,751	425	F	C	45	5	0	1969
207. Pure Indianapolis, IN Industrial maintenance chemicals	1,017	1,184	106	C	F	19	1	0	1980
208. Hall Financial Group (128) Dallas, TX Real estate mgmt.	1,012	76,374	6,869	A	A	2,150	835	1	1969
209. Ram Graphics Alexandria, IN Wholesale shirts & trophies	1,010	2,452	221	D	B	45	12	0	1976
210. Caprice Printing Elk Grove Village, IL Mfr. offset printers	1,009	1,242	112	C	C	11	3	0	1980
211. Davco Printed Circuits Ft. Lauderdale, FL Mfr. wiring boards	1,007	12,513	1,130	B	F	153	102	0	1980
212. Kassouf Parking (44) Cleveland, OH Parking lot mgmt.	1,007	6,508	588	D	C	95	52	0	1972
213. Maxima (98) Bethesda, MD Integrated info. technology svc.	1,004	19,719	1,786	D	C	365	53	0	1978
214. Academic Guidance Services Marlton, NJ Academic consultant	997	1,130	103	A	A	30	5	0	1975
215. Aloette Cosmetics (73) Malvern, PA Direct sale of cosmetics	996	9,577	874	B	D	23	6	0	1977
216. General Health Washington, DC Health care prods. & svc.	996	2,794	255	C	F	46	10	0	1979
217. Moss Brown (89) Alexandria, VA Total fitness catalog	995	8,543	780	F	D	63	12	0	1977
218. Schlott Realtors (278) Fair Lawn, NJ Real estate	993	17,142	1,568	D	F	180	40	10	1971
219. Whitebirch Breezy Point, MN Real estate & timesharing	993	15,305	1,400	C	F	490	180	1	1974
220. TABS Associates (242) Baltimore, MD Presort mail svc.	992	5,919	542	D	D	532	232	2	1977
221. T H Hill Associates Houston, TX Petroleum industry consultant	991	2,738	251	C	C	52	10	0	1980
222. World Leasing Ridgewood, NJ Computer equipment leasing	990	18,373	1,685	B	D	13	3	0	1976
223. Commonwealth Mortgage Company (75) Boston, MA Mortgage banking	989	19,050	1,750	D	D	275	40	0	1961
224. Ettwein Construction Bethlehem, PA Construction	985	11,016	1,015	D	E	30	10	0	1978
225. Miller Medical Service (210) Waterloo, IA Medical equip. & supplies	982	4,427	409	C	A	57	4	0	1978
226. Quality Electronic Associates Sunnyvale, CA Mfr. electronic prods.	982	1,288	119	C	D	115	19	0	1978
227. SAS Institute (169) Cary, NC Distr. computer software	982	52,612	4,864	A	A	454	58	0	1976
228. Systems Research and Applications (60) Arlington, VA Systems analysis	970	8,831	825	D	C	147	25	0	1978
229. Technicomp Publishing Cleveland, OH Technical training progs.	961	1,082	102	D	D	8	4	0	1979
230. Summa Four (225) Manchester, NH Mfr. telecommunications equip.	961	8,113	765	C	F	102	18	0	1976
231. Merrill (321) St. Paul, MN Computerized typesetting	954	24,974	2,369	D	D	264	60	1	1968
232. Prime Resources (193) Stamford, CT Specialty advertising prods.	954	2,887	274	C	E	51	11	1	1978
233. Paneltronics Marine Industries Hialeah, FL Mfr. electrical panels	953	1,379	131	D	D	18	6	0	1979
234. John Cooper Enterprises Valle Crucis, NC General merchandise	950	1,480	141	C	F	13	4	0	1980
235. One Hour Delivery Service Dallas, TX Delivery service	949	1,678	160	C	C	64	9	0	1980

*INC. estimate: A 16% or more; B 11% to 15%; C 6% to 10%; D 1% to 5%; E Breakeven; F Loss.

Company (1984 rank) Business description	Sales growth 1980-84	'84 sales	'80 sales	Profit range*		No. of employees		Acquisitions	Date
	Percent increase	($000)	($000)	'84	'80	'84	'80	'80-'84	founded
236. **Technology Constructor** (422) Denver, CO General contractor	947 %	$1,769	$169	F	B	40	15	0	1978
237. **ABO** Mabank, TX Mfr. wood trusses	945	10,372	993	D	C	170	30	0	1978
238. **Harper Buzinec Carreno Architects** (120) Miami, FL General architecture	941	1,644	158	B	C	40	5	0	1979
239. **Testa Communications** (170) Carle Place, NY Magazine publisher	939	3,055	294	D	F	21	6	1	1979
240. **Heurikon** (166) Madison, WI Mfr. microcomputer boards	926	6,353	619	D	C	55	21	0	1972
241. **HSC Engineering** (104) Towson, MD Construction engineer. & design	921	8,371	820	B	A	112	23	0	1976
242. **Ohio Electronics Engravers** Dayton, OH Mfr. electronic engravers	914	1,886	186	B	F	25	6	0	1978
243. **Perfect Courier** (47) New York, NY Courier service	914	14,621	1,442	C	D	500	150	3	1979
244. **Daron Packaging Group** Glen Cove, NY Flexible packaging	914	1,024	101	C	A	6	2	0	1979
245. **Dorothy's Ruffled Originals** Wilmington, NC Curtain retail/mfr.	910	8,786	870	D	C	181	29	0	1976
246. **Perspectives** Lexington, KY Retail paint & wallcoverings	910	1,262	125	D	F	8	2	0	1980
247. **American List Counsel** (46) Princeton, NJ Direct marketing	906	14,422	1,434	D	E	32	11	1	1978
248. **Godick** Philadelphia, PA Certified public accountants	906	1,609	160	A	C	31	5	0	1980
249. **Pro-File Systems** Conshohocken, PA Filing systs.	905	1,126	112	E	E	10	3	0	1979
250. **California Sealing Devices** Van Nuys, CA Distr. seals & gaskets	901	1,211	121	D	E	9	3	0	1979
251. **Techne Electronics** (347) Palo Alto, CA Mfr. vehicle security systs.	900	2,200	220	D	F	39	4	0	1975
252. **Newpro** Woburn, MA Distr. windows & doors	894	13,464	1,354	D	D	113	3	0	1980
253. **Administrative Information Systs.** (99) Bridgewater, NJ Medical software & hardware systs.	894	2,048	206	F	F	31	5	0	1977
254. **BMC** St. Charles, IL Mfr. fiberglass molding	892	8,493	856	C	D	25	8	0	1978
255. **Label America** Stone Mountain, GA Label printing	891	2,061	208	D	F	18	10	0	1980
256. **S.J. Electro Systems** (269) Detroit Lakes, MN Mfr. alarm systs.	889	1,533	155	B	B	22	4	0	1975
257. **Western Pacific Data Systems** San Diego, CA Industrial software	888	4,396	445	D	F	19	5	0	1979
258. **Executone Telecommun. (PA)** (197) Reading, PA Telephone sales	884	3,465	352	F	F	66	9	0	1945
259. **American Cablesystems** Beverly, MA Operator of cable TV systs.	880	40,466	4,128	F	F	525	49	5	1978
260. **Gemini Research** (65) Fremont, CA Mfr. epitaxial reactors	876	27,224	2,788	B	B	140	15	0	1979
261. **Yantis** (340) San Antonio, TX Highway contractor	874	11,784	1,210	C	A	107	43	0	1975
262. **J.J. Grundy** (34) Ottowa, IL Windows, door, energy-saving prods.	872	14,943	1,537	D	B	330	90	1	1979
263. **Q.E.P.** West Nyack, NY Mfr. ceramic tile tools	872	1,409	145	D	F	6	2	0	1979
264. **Foreign Candy** Hull, IA Imports candies	871	3,690	380	C	F	71	6	0	1978
265. **Citibag** New York, NY Mfr. plastic bags	866	1,333	138	C	D	14	4	0	1980
266. **Comanche Contractors** Houston, TX General contractor	865	4,343	450	D	D	11	3	0	1979
267. **Office Systems** (182) Charlotte, NC Computer sales	863	5,202	540	D	D	38	5	0	1978
268. **Honolulu Premium Products** (151) Honolulu, HI Mfr. jewelry	863	3,109	323	A	A	24	20	0	1979
269. **Sage Systems** (284) Rockville, MD Computer software	860	13,042	1,358	B	D	134	40	3	1973
270. **Somerset Printing** Burlingame, CA Commercial printing	857	1,292	135	C	B	17	2	2	1969

*INC. estimate: A. 16% or more; B. 11% to 15%; C. 6% to 10%; D. 1% to 5%; E. Breakeven; F. Loss.

	Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range*		No. of employees		Acquisitions	Date founded
					'84	'80	'84	'80	'80-'84	
271.	**Chrishawn Associates** Bradenton, FL Mfr. framed art prods.	856 %	$1,004	$105	C	E	26	2	0	1979
272.	**Star & Crescent Herbs** Sacramento, CA Mfr. spices & botanicals	855	1,490	156	D	B	10	4	0	1975
273.	**Systems Management American** Norfolk, VA Computer systems integrator	851	51,648	5,431	D	E	436	366	0	1970
274.	**LaBrec Financial Group** Nashville, TN Financial svc.	845	954	101	A	C	8	5	0	1976
275.	**Compendium Systems** (253) New York City, NY Magazine publisher	839	12,400	1,320	A	A	28	13	0	1978
276.	**Metrocall of Delaware** (254) Alexandria, VA Mobile phone svc.	838	13,092	1,395	F	A	105	8	4	1969
277.	**Slautterback** Sand City, CA Mfr. sealant equip.	836	5,599	598	C	F	56	15	0	1979
278.	**A-1 Textiles** Chatsworth, CA Wholesaler/retailer of linen	835	1,477	158	D	E	4	2	0	1980
279.	**McBroom Pool Products** Virginia Beach, VA Retail pool supplies	831	2,869	308	D	D	45	5	0	1980
280.	**Toucan Business Forms** Hyattsville, MD Mfr. business forms	825	1,721	186	C	C	8	2	0	1980
281.	**Electronic Design & Sales** Danville, VA Mfr. power supplies	824	2,772	300	A	A	61	21	0	1976
282.	**Rachel's Brownies** Malvern, PA Wholesale bakery	823	1,754	190	D	B	21	4	0	1979
283.	**Robbins Communications** Pittsburgh, PA Communications installation	822	1,954	212	B	A	65	12	0	1978
284.	**Patten** Stamford, VT Real estate development	821	18,549	2,014	C	C	93	13	0	1968
285.	**Image Stream** (202) Los Angeles, CA Event marketing	819	3,695	402	C	B	24	7	0	1978
286.	**Runco Video** Foster City, CA Mfr. projection TVs	817	1,082	118	F	F	16	2	0	1980
287.	**Sunbelt Distributors** (203) Houston, TX Distr. frozen food	815	8,751	956	D	D	41	8	0	1977
288.	**Virginia Textiles** (187) Richmond, VA Retail sportswear	814	11,299	1,236	D	D	70	9	3	1976
289.	**Label Graphics** (155) Portland, OR Mfr. labels	814	2,613	286	C	B	39	3	0	1979
290.	**Hamilton Projects** New York City, NY Merchandising representative	810	2,430	267	D	D	10	3	0	1972
291.	**ZZYZZX Technologies** (266) Houston, TX General contractor	809	36,042	3,963	E	F	250	75	0	197
292.	**Alliance Research** (44) Chatsworth, CA Supplier of electronic parts	809	7,532	829	A	A	35	4	0	1978
293.	**Garey Construction** (404) Austin, TX General contractor	806	13,031	1,438	C	C	80	30	0	1977
294.	**Lawrenceville Press** Lawrenceville, NJ Computer programming texts	806	942	104	C	C	3	1	0	1980
295.	**Slotline Golf** (339) Huntington Beach, CA Mfr. golf clubs	803	3,108	344	D	F	37	6	0	1975
296.	**Pro Audio General Store** Ocala, FL Retail audio & recording equip.	803	1,635	181	D	F	6	2	0	1979
297.	**Peter Piper Pizza** (181) Phoenix, AZ Pizza restaurants	802	31,286	3,468	C	B	100	40	2	1973
298.	**Starmark** (328) Chicago, IL Advertising & marketing	799	7,842	872	D	B	26	6	0	1978
299.	**Renaissance Printing** (70) Detroit, MI Financial printing	795	6,614	739	F	D	120	30	0	1977
300.	**American Plumbing Partsmaster** Baldwin Park, CA Wholesale plumbing parts	792	946	106	C	C	5	2	0	1980
301.	**CIT Construction Inc. of Texas** Stafford, TX Commercial contractor	789	4,000	450	B	B	15	5	0	1980
302.	**Hawaiian Pacific Elevator** (133) Honolulu, HI Elevator contractor	787	3,709	418	D	D	37	20	0	1977
303.	**Fastec Industrial** (28) Elkhart, IN Distr. fasteners	786	13,694	1,545	D	D	69	9	2	1979
304.	**Centrac** (134) Seattle, WA Construction consulting	783	2,083	236	C	D	66	9	0	1978
305.	**Computerland of Bergen County** (373) Paramus, NJ Computer sales	782	2,691	305	E	E	10	6	0	1978

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Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range* '84	Profit range* '80	No. of employees '84	No. of employees '80	Acquisitions '80-'84	Date founded
306. Sinclair International Portland, OR Financial consulting	781 %	$1,569	$178	B	F	4	2	2	1971
307. Weingart Fort Wayne, IN Mfr. testing machines	776	6,256	714	B	F	145	16	0	1971
308. PNS (412) Racine, WI Packing & shipping locations	774	2,954	338	D	F	6	4	0	1976
309. Jet Blast Baltimore, MD Industrial cleaning svc.	773	2,472	283	D	B	60	15	0	1979
310. Stop 'N Shop Hays, KS Convenience stores	773	25,443	2,915	D	D	346	22	9	1976
311. Great Western Leasing Salt Lake City, UT Truck leasing	772	3,986	457	A	E	26	4	0	1978
312. Checks To-Go El Cajon, CA Distr. business forms	771	2,830	325	F	F	60	5	0	1978
313. Proforma (346) Cleveland, OH Distr. business forms	765	3,314	383	D	B	18	4	1	1978
314. National Instruments Austin, TX Mfr. computer interface equip.	762	5,088	590	B	D	60	14	0	1976
315. Carl Beavers Construction (147) Searcy, AR Residential construction	761	1,575	183	C	B	7	2	0	1978
316. Jarvis Manufacturing Scotts Valley, CA Mfr. burn-in systs.	757	1,877	219	C	C	24	1	0	1980
317. Gartner Group (163) Stamford, CT Technology information svcs.	756	14,108	1,648	D	F	140	26	0	1979
318. Swintec (294) East Rutherford, NJ Mfr. electronic office prods.	755	28,291	3,307	D	D	39	12	0	1978
319. Calibrake Independence, MO Mfr. disc brakes	751	1,540	181	D	D	35	6	0	1979
320. Drug Emporium (430) Worthington, OH Discount drugstore	748	79,658	9,392	D	D	148	40	1	1977
321. Robelle Industries (311) Foxboro, MA Retail recreational prods.	746	16,816	1,987	D	D	125	8	5	1976
322. Omega Concord, CA Security & control systs.	741	2,272	270	D	D	20	10	0	1973
323. Bohle Los Angeles, CA Public relations	741	1,774	211	C	A	29	6	0	1979
324. Brougher International (158) Greenwood, IN Insurance underwriting	741	13,819	1,644	D	F	125	60	0	1972
325. Video Service of America Lincoln, NB Distr. videotape & equip.	733	2,100	252	C	E	8	2	0	1976
326. General Communications (255) Denver, CO Magazine publisher	731	2,527	304	C	D	38	10	5	1978
327. Tessco (71) Georgetown, TX Electronics mfr.	724	14,280	1,734	E	D	342	117	1	1977
328. Viar (222) Alexandria, VA Mgmt. svcs. & software	723	11,939	1,450	C	C	76	36	0	1976
329. R&B Automotive (230) Huntingdon Valley, PA Mfr. automotive prods.	723	12,077	1,468	D	D	140	65	0	1978
330. Dalcon International Nashville, TN Computer sales	717	1,977	242	D	B	29	3	0	1978
331. Jet-Ster (103) Rochester, WA Spa mfr.	714	2,981	366	B	F	33	17	2	1977
332. Culver Personnel Agency San Diego, CA Professional placement	714	863	106	D	D	33	5	0	1979
333. National Computer Print (445) Birmingham, AL Mfr. loan payment books	713	18,484	2,273	A	C	190	60	1	1974
334. ESCA Bellevue, WA Software development	711	7,114	877	D	F	85	20	0	1978
335. Psicor (313) Brighton, MI Medical svcs.	711	13,546	1,670	D	C	123	23	0	1968
336. TVX Broadcast Group Virginia Beach, VA Operates commercial TV	710	15,475	1,910	F	F	185	75	3	1977
337. Comfab Addison, IL Mfr. telephone equip.	704	6,730	837	D	D	131	10	0	1974
338. Booth Organization (342) Rockville, MD Building maintenance	703	3,701	461	C	A	397	118	0	1977
339. Heritage Insurance Associates (372) Lancaster, PA Insurance broker	703	1,140	142	D	C	4	2	0	1979
340. Help-U-Sell Mission Viejo, CA Real estate counseling	703	859	107	D	D	3	2	0	1977

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Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range*		No. of employees		Acquisitions '80-'84	Date founded
				'84	'80	'84	'80		
341. Creel Morrell (327) Houston, TX Turnkey graphic design	700%	$1,640	$205	C	D	26	6	0	1979
342. Western Medical Specialties San Bernardino, CA Home health care prods.	700	6,535	817	D	C	37	4	0	1979
343. American Agrisurance (479) Council Bluffs, IA Crop insurance	698	35,900	4,500	D	D	75	6	0	1977
344. Operations Control Systems Palo Alto, CA Software sales & svc.	698	1,699	213	A	A	30	5	0	1976
345. Cormed (334) Medina, NY Mfr. home care prods.	694	4,661	587	D	B	25	5	0	1976
346. McDonald Equipment (285) Willoughby, OH Distr. engine-generator sets	693	34,300	4,326	D	D	61	43	1	1968
347. Campmor (335) Paramus, NJ Mail-order catalog	692	10,300	1,300	D	D	65	15	0	1978
348. Mariposa Press (92) Benicia, CA Printing	692	11,416	1,442	F	F	104	10	0	1979
349. Productive Computer Systems Chicago, IL Business computer systs.	690	1,177	149	B	D	9	1	0	1980
350. Microware Distributors (7) Aloha, OR Distr. microcomputers	688	15,361	1,950	D	D	32	8	0	1979
351. Megas Manufacturing (322) Cleveland, OH Mfr. health & beauty aid prods.	688	13,351	1,695	C	C	125	40	1	1976
352. Industrial Photographic Supply Bellaire, TX Industrial darkroom supplies	686	1,666	212	C	D	5	2	0	1980
353. Microfilm Service Seattle, WA Microfilming svcs. & equip.	685	3,768	480	C	C	98	25	2	1956
354. Comp-u-Staff Towson, MD Computer consultants	684	11,421	1,457	D	D	225	33	2	1978
355. Executone Telecommunications (FL) Jacksonville, FL Sales & svc. telephone syst.	683	1,925	246	C	F	24	5	0	1980
356. Fashion Care Atlanta, GA Dry cleaning stores	679	3,575	459	C	B	113	15	2	1974
357. Comsel (136) Vienna, VA Distr. computer peripherals	678	4,748	610	C	A	14	3	0	1978
358. Northwest Gears Everett, WA Mfr. aerospace gears	676	1,467	189	C	B	16	3	0	1979
359. MDR Cartage Jonesboro, AR Irregular route common carrier	675	12,218	1,577	D	D	166	50	0	1979
360. Brad Cable Electronics (377) Schenectady, NY Mfr. cable TV converters	670	6,949	902	B	C	236	35	0	1976
361. Environmental Marketing Group (420) Boca Raton, FL Environmental prods. & svcs.	669	4,459	580	D	B	23	4	0	1977
362. Barry Blau & Partners Fairfield, CT Direct marketing	667	17,980	2,343	A	A	73	5	0	1978
363. Sandberg Industries Irvine, CA Mfr. electronic prods.	664	4,569	598	D	B	95	23	1	1980
364. Conquest Associates (219) Tarzana, CA Electronics search firm	664	2,092	274	F	C	34	12	0	1979
365. Integral Systems (495) Walnut Creek, CA Human resources software prods.	663	14,037	1,839	D	E	150	50	0	1972
366. Cabinet Door Morgan Hill, CA Mfr. cabinet doors	661	5,005	658	C	D	82	12	0	1966
367. Bonnecaze, McLeroy & Harrison Dallas, TX Software development	656	1,021	135	C	C	8	4	0	1980
368. Thacker Jewelry (67) Roaring Springs, TX Retail jewelry	651	3,349	446	D	C	39	3	0	1979
369. TravelCenter (315) Anchorage, AK Travel agency	650	115,294	15,371	D	D	370	48	2	1946
370. Omega World Travel Falls Church, VA Travel agency	649	4,796	640	D	E	150	25	0	1972
371. Allen & Associates Membership Develop. Houston, TX Developer of membership programs	649	3,207	428	D	D	9	2	0	1979
372. Gila Medical Services (418) Claypool, AZ Medical services	649	2,862	382	C	C	26	10	0	1959
373. Record Exchange of Roanoke Greensboro, NC Retail records	646	806	108	D	B	25	8	0	1979
374. Baker Installations (293) Pittsburgh, PA Cable installation	637	4,174	566	D	B	120	29	0	1976
375. Corby Industries (131) Allentown, PA Mfr. digital access key	636	2,061	280	D	D	13	12	0	1975

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Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range* '84	Profit range* '80	No. of employees '84	No. of employees '80	Acquisitions '80-84	Date founded
376. Marketing Communications (238) Lenexa, KS Direct-mail advertising	636 %	$13,242	$1,800	C	C	100	33	0	1969
377. Vanguard Plastics (362) McPherson, KS Plastic piping systs	635	11,214	1,525	D	F	72	21	0	1977
378. Florida Restaurants Winter Park, FL Restaurants	632	4,640	634	D	F	150	25	1	1979
379. Nutrition Management Services Wayne, PA Food services	630	2,789	382	D	D	107	25	0	1979
380. R. L. Drake Miamisburg, OH Mfr. satellite communications equip	629	69,355	9,519	A	C	476	222	0	1942
381. Dupey Management Irving, TX Retail art supplies	628	54,691	7,514	D	D	290	50	0	1977
382. V.I.P. Structures Syracuse, NY General contractor	627	10,621	1,461	D	D	100	20	0	1975
383. Morino Associates Vienna, VA Mainframe computer software	624	12,457	1,721	B	C	100	17	0	1973
384. ZBS Industries Mayfield Village, OH Distr. videos	624	38,242	5,285	D	D	70	12	0	1979
385. Kippgroup Ontario, CA Mfr. plastic injection molds	623	3,332	461	A	A	35	7	0	1976
386. UAI Technology (268) Research Triangle Park, NC Cash management svcs	623	3,967	549	C	B	37	5	1	1978
387. ETM Electromatic (343) Palo Alto, CA Mfr. power supplies	621	3,872	537	D	C	78	17	0	1973
388. Lost Arrow (438) Ventura, CA Mfr. outdoor clothing & equip	618	22,449	3,125	D	D	170	55	0	1959
389. Fortis Fortis Advertising Chicago, IL Advertising agency	616	1,367	191	C	F	26	5	0	1980
390. International Search Consultants Euclid, OH Executive search firm	614	1,729	242	D	C	30	9	0	1979
391. Family Music Center of Dallas Dallas, TX Retail pianos & organs	614	2,692	377	D	D	23	4	0	1980
392. Central Data (122) Champaign, IL Mfr. computer board prods	611	6,284	884	C	B	55	16	1	1977
393. Micro Industries (250) Westerville, OH Engineering svcs	610	3,601	507	F	B	34	25	0	1979
394. Homefinders Rentals (164) Berkeley, CA Rental housing svcs	610	2,150	303	B	D	24	8	0	1970
395. Electra Form Vandalia, OH Mfr. injection tooling	609	10,202	1,438	D	D	115	45	0	1979
396. Consumer Products Associates (310) Chatsworth, CA Mfr. beauty aids	609	4,713	665	D	B	105	16	1	1973
397. Sinbad Sweets (235) Clovis, CA Wholesale bakery	607	1,513	214	D	B	20	8	0	1978
398. John J. King Provisions Bohemia, NY Food prod. distr.	607	7,554	1,069	D	D	20	5	0	1976
399. West Insulation Systems LaGrange, OH Foam insulation	607	1,406	199	D	C	16	4	0	1979
400. Sharper Image (289) San Francisco, CA Specialty catalog	606	85,598	12,126	E	E	250	30	0	1977
401. Argosy Electronics (16) Edina, MN Mfr. hearing aids	605	8,989	1,275	C	C	89	19	0	1979
402. Flame Control Coatings Niagara Falls, NY Mfr. fire retardant paints	605	1,395	198	C	B	9	2	0	1976
403. Williams Generics Memphis, TN Distr. generic pharmaceuticals	601	8,855	1,264	A	A	40	5	0	1970
404. FKM Copier Products (179) Irvine, CA Retail copying equip	598	5,990	858	D	C	50	17	1	1979
405. Setpoint (366) Houston, TX Computer control applications	597	10,207	1,465	C	C	108	46	0	1977
406. Tiresias Orangeburg, SC Mfr. pine flooring	592	747	108	D	F	10	3	0	1979
407. R.J. Marshall (228) Detroit, MI Industrial processing	588	5,673	825	D	D	18	2	0	1979
408. American Television Systems Twinsburg, OH Entertainment systs. svc	588	2,482	361	D	C	28	9	0	1972
409. Matarazzo Design Concord, NH Landscape architecture	580	1,211	178	C	B	20	3	0	1976
410. Hill International (159) Willingboro, NJ Management consultants	580	30,600	4,500	C	D	340	100	2	1976

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	Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range* '84	Profit range* '80	No. of employees '84	No. of employees '80	Acquisitions '80-'84	Date founded
411.	**Himar Sales** Beverly Hills, CA Mfr. luggage	578 %	$6,941	$1,023	C	D	9	3	0	1955
412.	**Fiesta Salons** Columbus, OH Hair & tanning salons	577	12,706	1,878	D	C	914	212	0	1974
413.	**GPA Technical Consultants** (500) Cincinnati, OH Engineering consulting	576	14,867	2,199	C	D	285	70	1	1979
414.	**Enconi** (5) San Jose, CA Mfr. peripherals	575	16,280	2,412	D	B	39	20	0	1979
415.	**Atlantic Data Services** Quincy, MA Software services	574	1,725	256	B	D	35	4	0	1980
416.	**C.J.P. Development** Cranbury, NJ Residential siding	573	2,753	409	E	E	90	15	0	1972
417.	**SCIPAR** (356) Buffalo, NY Computer R&D	572	3,837	571	C	C	39	11	0	1975
418.	**International Resources Group** Setauket, NY Natural resource consultant	566	3,145	472	D	C	45	6	0	1978
419.	**Northeast Business Computers** Warwick, RI Business computer systs.	566	2,057	309	D	D	8	3	0	1977
420.	**Creative Business Systems** San Diego, CA Mfr. business forms	565	2,115	318	E	F	30	12	0	1978
421.	**MacAulay-Brown** Fairborn, OH Aerospace R&D	565	1,882	283	C	B	30	8	0	1979
422.	**Tele America** Northbrook, IL Telemarketing	564	976	147	B	E	8	2	0	1980
423.	**David W. Buker** Antioch, IL Management consultants	564	896	135	A	A	4	2	0	1979
424.	**William M. Hansen Associates** Miami, FL Catering svc.	560	1,550	235	B	A	25	15	0	1980
425.	**Resource Consultants** (195) Vienna, VA Industrial consultants	559	7,694	1,167	D	D	148	41	0	1979
426.	**Goal Systems International** (329) Columbus, OH Software development	556	13,547	2,065	A	E	79	28	0	1975
427.	**CPA Services** Milwaukee, WI Publisher	555	662	101	C	F	6	1	0	1979
428.	**North American Finan. Svcs.** (299) St. Petersburg, FL Computer consultants	555	10,809	1,651	D	D	166	35	3	1976
429.	**Advanced Computer Graphics** Milwaukee, WI Service bureau for computer graphics	555	2,245	343	D	C	45	5	0	1978
430.	**American Technical Services Group** (247) Tucker, GA Design control systs.	553	43,197	6,620	D	D	560	150	1	1975
431.	**Economy Restaurant Equipment** (229) Orlando, FL Retail restaurant equip.	552	1,383	212	C	C	13	1	0	1979
432.	**Corinthian Communications** New York, NY Media buying	550	78,000	12,000	D	D	18	8	0	1976
433.	**Bill Rodgers** (29) Weymouth, MA Mfr. running clothing	549	8,508	1,311	D	D	20	8	0	1978
434.	**Diversified Systems** (200) Indianapolis, IN Engineering svcs.	545	3,542	549	C*	B*	60	20	0	1973
435.	**N. Chasen & Son** (213) Richmond, VA Retail office furniture	543	13,238	2,059	D	D	91	43	0	1914
436.	**Brooks International** (436) Miami, FL Delivery	541	10,112	1,577	D	D	250	210	1	1972
437.	**D.O. Thompson** (139) Hendersonville, NC Homebuilder	541	8,359	1,304	D	D	64	79	0	1979
438.	**Cheyenne Services** Houston, TX Oilfields svcs.	539	4,447	696	D	C	47	19	0	1980
439.	**Emergency Power Engineering** Costa Mesa, CA Computer power supply equip.	538	28,202	4,423	C	C	300	50	0	1971
440.	**Analysis and Measurement Services** Knoxville, TN Engineering consulting	537	669	105	D	C	6	3	0	1977
441.	**Endless Vacation Systems** (389) Indianapolis, IN Travel svc.	532	22,850	3,613	D	F	416	105	0	1974
442.	**Local Data** Torrance, CA Mfr. protocol converters	532	8,049	1,274	C	D	104	13	0	1978
443.	**J.R. Retrofit** Fredericksburg, VA Mfr. pallet nailing systs.	531	1,307	207	E	F	20	4	1	1980
444.	**Coated Papers** Elgin, IL Mfr. carbon paper	531	4,714	747	D	C	27	5	0	1979
445.	**Central Petroleum Transport** Sioux City, IA Common carrier	530	958	152	D	C	2	1	0	1960

*INC. estimate: A: 16% or more; B: 11% to 15%; C: 6% to 10%; D: 1% to 5%; E: Breakeven; F: Loss.

Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range* '84	Profit range* '80	No. of employees '84	No. of employees '80	Acquisitions '80-'84	Date founded
446. Edd Helms (167) Miami, FL Electrical contracting	529 %	$16,091	$2,558	F	C	250	50	2	1975
447. Tek-Aids Industries (396) Arlington Heights, IL Distr. microcomputer prods.	525	24,071	3,852	E	E	74	26	1	1974
448. Holm Industries (91) Scottsburg, IN Mfr. vinyl & magnetic extrusions	525	10,102	1,617	D	F	229	109	0	1978
449. Alarmtronics Security Systems Tampa, FL Security svcs.	522	622	100	D	F	13	5	0	1979
450. Comsearch (431) Reston, VA Telecommunications engineering	521	9,117	1,468	B	A	100	24	0	1977
451. Texas Drug Reps (301) San Antonio, TX Distr. generic pharmaceuticals	518	4,856	786	F	D	19	12	0	1976
452. Amplicon (305) Santa Ana, CA Computer leasing	515	34,840	5,669	C	C	28	11	0	1977
453. Associated Packaging (390) Goodlettsville, TN Distr. packaging equipment	513	9,280	1,514	D	D	30	8	0	1977
454. Dataman Group Atlanta, GA Information mgmt.	512	2,149	351	A	E	25	3	0	1980
455. Vocational Training Center (258) St. Louis, MO Vocational school	511	3,383	554	C	D	150	50	0	1961
456. RT/Katek Communications (146) East Orange, NJ Cable TV services	510	20,080	3,294	D	C	385	50	3	1972
457. Eterna-Line (398) Boise, ID Specialty contracting	507	2,824	465	C	D	12	5	0	1971
458. International Recruiting Systems Van Nuys, CA High-tech employment svcs.	507	1,013	167	D	D	18	5	0	1973
459. Donnybrook Building Supply Fairbanks, AK Retail building materials	506	13,194	2,177	D	D	90	20	1	1975
460. RAIL (211) Towson, MD Technical svcs.	504	13,678	2,263	D	D	170	35	0	1970
461. American Passage Marketing (403) Seattle, WA Direct marketing	504	10,451	1,731	C	D	142	42	0	1976
462. Waterbeds Plus Oshkosh, WI Mfr. waterbeds	503	1,291	214	C	F	20	3	0	1979
463. Mandex Washington, DC Telecommunications engineering	502	7,941	1,319	D	D	160	40	1	1974
464. National Buying Service Salem, VA Retail appliances	501	7,523	1,251	D	D	23	6	0	1975
465. Great Atlantic Spa Supply (282) Virginia Beach, VA Retail spa supplies	501	1,814	302	D	D	17	5	0	1978
466. Teletronic Services Cuyahoga Heights, OH Distr. telephone systs.	500	3,842	640	D	C	46	7	3	1979
467. Lawson Associates (360) Minneapolis, MN Accounting software	500	7,742	1,290	D	D	160	38	1	1975
468. Comp-Fast (188) Hudson, NH Distr. electronic components	500	12,608	2,102	D	D	55	14	1	1977
469. Pacific Envelope (371) Anaheim, CA Mfr. envelopes	499	6,372	1,064	D	C	61	12	1	1959
470. Guardian Protection Services Coraopolis, PA Security & fire systs.	498	1,082	181	D	D	18	4	0	1962
471. Dimensional Management (267) Avenel, NJ Dental care centers	494	22,002	3,702	C	C	600	150	8	1976
472. Computer Maintenance (446) East Rutherford, NJ Computer svc. & repair	494	6,144	1,034	D	D	61	32	1	1977
473. Associated Images (440) Minneapolis, MN Media design & promotion	494	1,241	209	C	D	13	5	0	1976
474. J-E-S-P East Brunswick, NJ Micrographics	493	676	114	C	A	17	8	0	1976
475. Rehler Vaughn Beaty & Koone San Antonio, TX Architects	491	2,990	506	B	C	57	16	0	1971
476. CTEC (375) Sacramento, CA Mfr. ski chairlifts	489	6,649	1,129	D	D	148	24	0	1976
477. Daly and Wolcott Warwick, RI Data processing	486	1,008	172	C	A	19	7	0	1979
478. NonPublic Educational Services Bethesda, MD Educational svcs.	486	1,775	303	D	D	63	22	0	1978
479. Support Systems Intl. (CA) (264) Richmond, CA Mfr. data cables	485	3,859	660	D	A	110	21	0	1976
480. Underwriters Financial of Florida Miami, FL Finance company	485	2,058	352	A	F	3	17	0	1968

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	Company (1984 rank) Business description	Sales growth 1980-84 Percent increase	'84 sales ($000)	'80 sales ($000)	Profit range* '84	Profit range* '80	No. of employees '84	No. of employees '80	Acquisitions '80-'84	Date founded
481.	**Miller Oil** (469) Norfolk, VA Distr. petroleum	484 %	$46,600	$7,983	D	D	92	38	4	1977
482.	**Intertec Components** (407) Longwood, FL Distr. electronic components	483	3,398	583	F	E	22	12	1	1976
483.	**Hinkle Metals & Supply** Birmingham, AL Distr. sheet metal	479	19,109	3,299	D	F	50	20	2	1980
484.	**Inductor Supply** Huntington Beach, CA Distr. electronic components	479	5,414	935	D	D	33	5	0	1979
485.	**Specialty Insurance Underwriters** Miami, FL Insurance agency	478	2,059	356	A	F	69	59	0	1962
486.	**Sharp Hartwig** Seattle, WA Marketing svcs.	477	1,223	212	D	C	30	7	0	1979
487.	**Gordon S. Black** (453) Rochester, NY Market research	476	2,179	378	F	D	33	13	0	1975
488.	**Contact Communications** Elmont, NY Radio paging	474	752	131	D	D	15	2	0	1980
489.	**JBM Electronics** (358) Hazelwood, MO Mfr. electronic commun. equip.	473	2,316	404	B	C	61	17	1	1975
490.	**Eastern Waste Industries** Annapolis, MD Waste removal	470	17,590	3,085	C	C	275	80	5	1978
491.	**Comark** (205) Glendale Heights, IL Distr. computer hardware	470	6,916	1,213	D	E	44	16	0	1977
492.	**Tool King** (162) Denver, CO Specialty retailer	469	7,220	1,268	D	E	50	12	0	1978
493.	**Cal-Pac Roofing** (45) Anaheim, CA Roofing contractor	469	14,650	2,576	D	F	180	65	0	1978
494.	**Electro Mechanical Design** (326) Gaithersburg, MD Mfr. magnetometers	469	2,320	408	F	A	73	16	0	1975
495.	**Miller Business Systems** Arlington, TX Distr. office supplies & equip.	467	30,003	5,289	D	D	195	66	1	1967
496.	**Environ. Resources Mgmt.** (416) West Chester, PA Environmental consulting	467	14,174	2,499	C	C	144	30	0	1977
497.	**Lufran** (439) Macadonia, OH Mfr. semiconductor prod. equip.	467	3,265	576	D	C	54	20	0	1974
498.	**Telco Research** (478) Nashville, TN Telecommunications software	466	5,447	963	C	D	67	21	0	1977
499.	**Meyco Industries** San Francisco, CA Mfr. brass gifts	465	1,673	296	B	B	34	9	1	1973
500.	**Phoenix Adver., Design & Promotion** Elm Grove, WI Advertising & marketing	464	666	118	D	A	5	4	0	1979

HOW THE INC. 500 WERE SELECTED

The 1985 INC. 500 is the fourth annual ranking of the 500 fastest-growing privately held smaller companies in the United States. To be considered for the INC. 500, each company had to meet the following qualifications:

1. The company is an independent, privately held corporation, proprietorship, or partnership.
2. It has a sales history of at least five years. Companies founded after 1980 are disqualified.
3. Sales in 1980 were at least $100,000 but less than $25 million.
4. The company's 1984 sales exceeded its 1983 sales. Companies showing growth in the five-year period, but a sales decline in 1984 were excluded.

While these criteria are relatively simple, the task of identifying the 500 finalists is complex, because of the number of companies involved and because the project depends on information that is generally regarded as confidential.

INC.'s research relies on several sources: INC. readers and in-house records, as well as business groups, trade associations, and professional-service firms that were alerted to the magazine's search for high-growth companies.

Advertisements and business reply cards inserted in the May and June issues of INC. invited readers to nominate candidates for the INC. 500. Beginning in May, qualification forms were sent to company executives.

From the responses, companies whose sales had at least quadrupled in the past five years were identified and ranked by percentage increase in sales.

Information about these companies as well as companies on last year's list was then verified through signed statements from company officers, support material from outside professional services, and telephone interviews with executives of each company.

This published information is the only material INC. will make available.

The list of INC. 500 companies was compiled by assistant research editor Sara Baer-Sinnott and interns Betsy Maddock, Margaret Chute, and Janet Tiampo. Additional assistance was provided by interns Ellen Bayer and Tanya Tabachnikoff.

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*INC estimate: A: 16% or more; B: 11% to 15%; C: 6% to 10%; D: 1% to 5%; E: Breakeven; F: Loss.

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How Air Atlanta Launched Itself with Zero Coupon Bonds

Data Design's
David Lowry's
Workstyle
in Action

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Judy Lawne

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of their legal work in-house. All those cutbacks have come at a time of explosive growth in the number of licensed attorneys, up about 25% since 1980.

Conflict-of-interest problems may plague the new ventures. If part of a law firm is working on a real estate deal, legal scholars question whether another part can advise the same client about legal difficulties with the deal. And clients are likely to worry that confidential information about their companies could be used by a firm to aid its own subsidiary. "*Any* time that a law firm's client has *any* business relationship with that firm's nonlegal business, I see a red flag," says New York University Law School professor Stephen Gillers. "Many firms are doing this with the best of intentions—but you can fall into ethical traps even when you're on the side of the angels." —*Nell Margolis*

Business Troubles in Mesopotamia, Part 2: *The Shekel's in the Mail*

Tell Puzur-Assur, Amua, and Assur-samsi:

Thirty years ago you left the city of Assur. You have never made a deposit since and we have not recovered one shekel of silver from you, but we have never made you feel bad about this. Our tablets have been going to you with caravan after caravan, but no report from you has ever come here. We have addressed claims to your father but we have not been claiming one shekel of your private silver. Please, do come back right away; should you be too busy with your business, deposit the silver for us. [Remember,] we have never made you feel bad about this matter but we are now forced to appear, in your eyes, acting as gentlemen should not. Please, do come back right away or deposit the silver for us.

If not, we will send you a notice from the local ruler and the police, and thus put you to shame in the assembly of the merchants. You will also cease to be one of us.

—Letter of Silla-Labbum and Elani, Old Assyrian period

SCORECARD

A Loan at Last

By Virginia Inman

When it comes to commercial loans, the rich aren't getting richer. New York City banks may have the most dough, but their commercial and industrial loan portfolios aren't rising very fast. The Federal Reserve districts that post the largest gains in C&I lending are those headquartered in Boston, Atlanta, and Richmond, regional hubs not known for their banking giants.

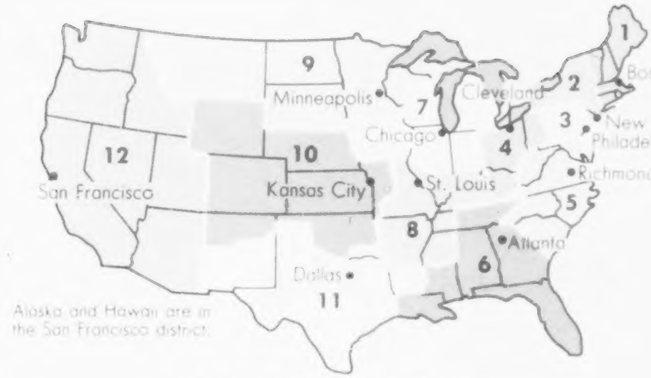
"Larger banks aren't getting much out of the middle market—small firms. That's where the growth [in loan demand] is," says Wayne D. Gantt, an economist at SunTrust Banks Inc., in Atlanta. "Those places that are traditionally large, money-centered bank areas—San Francisco, Chicago, New York—aren't growing as much." Many large banks have also been slowed by concerns about problem loans to Third World countries.

Commercial loans, most of which are made within a bank's own Fed district, tend to mirror economic trends. For example, 9 out of the top 10 states in personal income growth from 1982 to 1985 are in New England or the Southeast—the same regions that lead in C&I lending growth.

The severe economic troubles of the Farm- and Energybelts are reflected in figures for the Kansas City, Dallas, and Chicago regions, where lending dropped from the second quarter of 1984 to the second quarter of 1985. But parts of the Rustbelt are showing strength. The Cleveland and Philadelphia districts, comprising most of Ohio and Pennsylvania, continued to snap back during the same period with solid C&I lending increases of close to 17%.

The chart on the left shows the growth rates for the 12 Fed regions.

Region	C&I loans outstanding 2nd qtr. '85 ($ mil.)	% change 2nd qtr. '84–2nd qtr. '85
Boston	11,917	23.0
Atlanta	11,702	21.8
Richmond	16,141	21.2
St. Louis	4,349	21.0
Philadelphia	8,814	16.7
Cleveland	16,166	16.6
Minneapolis	4,940	14.1
San Francisco	51,977	7.4
New York	74,419	0.7
Kansas City	3,150	–0.3
Dallas	19,008	–3.8
Chicago	30,662	–5.0
Total	253,245	5.8



Federal Reserve Districts

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THE FIRST $100 MILLION
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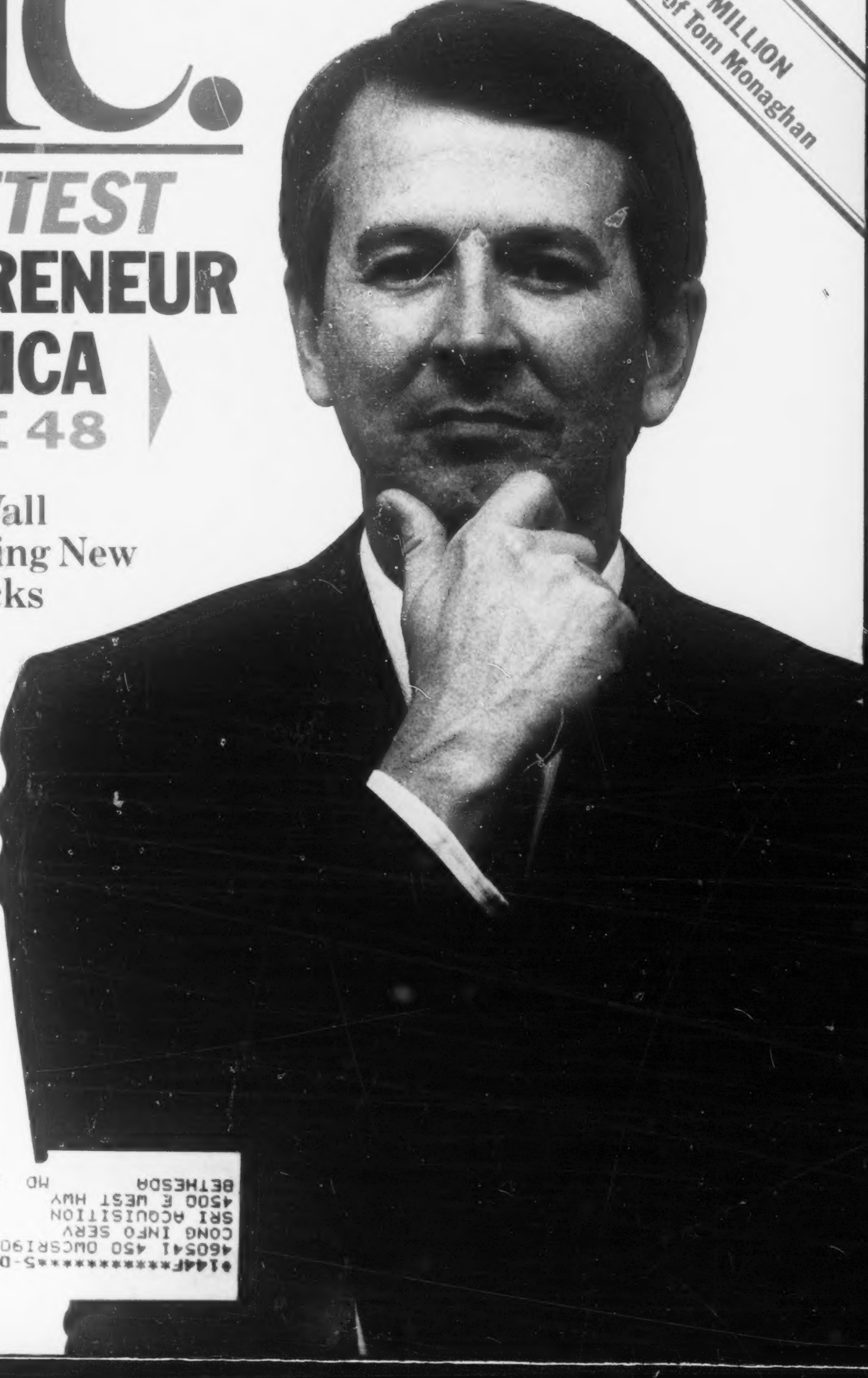
Learning the Language of Cost Control

How To Sell (Almost) Anything: Confessions of a Super Salesman



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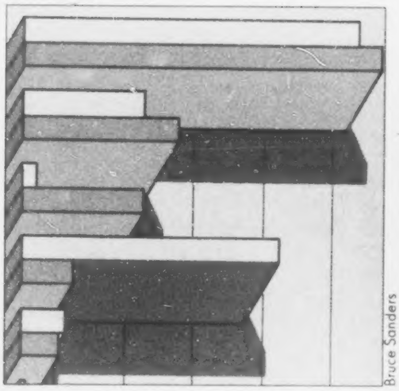

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Cover photo
Jerry Jones

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that could bankrupt the company.

But then someone had a bright idea. Would it really work to turn Delmar Skate Park into a Boy Scouts of America post?

"We had exhausted our approaches," says Dorothy Doan, owner of Pelican Properties. "We went to high-risk insurers, to everybody—there was simply nowhere to turn." When a newspaper article reminded her of the Boy Scouts' sponsorship of "chartered organizations," Doan saw one last chance for Delmar. She proposed to a division of the San Diego County Council of the Boy Scouts of America that the skateboard park be brought back to life as a Boy Scout post. It would give the park liability insurance—*free* liability insurance, covered by a portion of each Scout's registration fee, worth $40,000 under the council's master policy.

The Boy Scouts bit: what better way to expose the manic skateboard crowd to the gentler influences of Scouting? Now those who come to the gate with a skateboard—females 14 and over, males 8 to 20—have to join the Boy Scouts before they're allowed in the park. They're also encouraged to attend biweekly meetings and to earn merit badges in such activities as skateboard building, skate safety, and fitness.

How far could this approach go? Something tells us it won't work for toxic-waste-disposal companies.

—Nell Margolis

"Family business—talk about Greek tragedies revisited. I swear, the typical founder of a family business would have no problems whatsoever if he could be immortal and celibate."

—Léon A. Danco, The Center for Family Business, Cleveland

As the muggy Washington, D.C., summer of 1927 fizzled out, so did sales at two A&W root-beer stands. So the owners decided to add Mexican food. One checked out the idea with A&W, while his wife and his partner kept shop. A&W had no reservations, but the three still had to unwrap the mystery of hot tamales, which they had never made. To get some tips, the couple went to the chef at the Mexican embassy. Allie and Bill Marriott left with stacks of recipes, and the root-beer stands became the first of The Hot Shoppes.

SCORECARD

Black-Owned Businesses

By Virginia Inman

When it comes to black entrepreneurs, there's good news and bad news. Black Americans are creating new businesses at a much faster pace than the economy as a whole. From 1977 to 1982, according to a Census Bureau study, the number of black-owned companies increased 47%, almost twice the growth in the total number of nonfarm businesses.

ROLAND FREEMAN

Washington, D.C., architects Robert E. Bryant (left) and Charles I. Bryant

The bad news is that black-owned companies are tiny. In 1982, 89% of the 339,239 black companies had no paid employees, compared with about 40% of all businesses. And 63% had less than $10,000 in sales. Despite a 33% jump over the five-year period, the rate of black entrepreneurship remained low—in 1982, there were 12 black-owned firms per 1,000 blacks, compared with 63 companies per 1,000 people in the total population.

"What this says is that we've got a very large number of firms that really aren't firms at all," says James H. Lowry, president of a Chicago consulting firm of the same name. "More blacks are looking at business as a way out, but the vast majority of these firms are owned by people who have jobs and are doing something on the side." The 231% rise in "nonstore retailing," which includes selling from home, supports this analysis, especially since these retailers averaged less than $5,000 in 1982 sales.

More full-fledged businesses may be on the way, however. Two decades have passed since a large number of companies opened their doors to black managers. Many people who entered those jobs then "have gotten to the point where they're not going to go any higher. They are at the prime entrepreneurial age, about 40," says Paul Pryde, chairman of Pryde, Roberts & Co., a Washington, D.C., economic consulting firm. While the Census doesn't note ages, there is one indication that black professionals are going out on their own—a 41% jump in the number of black law firms.

Ten states saw the number of black companies grow faster than 60% over the five years surveyed. Mostly west of the Mississippi, they include such entrepreneurial hotbeds as Arizona, Colorado, and California. The list excludes states that had fewer than 250 black-owned businesses in 1977.

State	# cos. 1982	# cos. 1977	% change	1982 sales ($000)
Arizona	1,473	768	91.8%	$41,772
Minnesota	1,238	654	89.3	87,632
Colorado	2,537	1,372	84.9	88,118
Washington	2,433	1,353	79.8	70,955
Nevada	735	420	75.0	31,498
Maryland	15,601	8,994	73.5	540,256
New Mexico	555	325	70.8	15,270
Texas	29,927	17,912	67.1	888,794
California	44,658	36,756	66.9	1,619,839
Florida	16,577	10,344	60.3	616,913
U.S. total	339,239	231,203	46.7	12,443,572

INSIDER (continued)

BACK TO BASICS

The high-tech boom went bust, and investors started looking for managers with proven track records, and flocking to companies like Roto-Rooter and OshKosh B'Gosh.

BRUCE G. POSNER

Back in 1983, when the market for initial public offerings roared, the roster of best-selling new issues read like a venture capitalist's fantasy. Scores of young companies named Bio-this and Micro-that were raising money at prices that harkened back to the go-go years of the late 1960s. No matter that many of the businesses were embryonic and expecting to *lose* money for several years. Investors seemed convinced that, with the right amount of cash, these fledgling enterprises were going to transform the way we work and live.

How swiftly things change. The 1983 market is a distant memory these days, and so are the visions that fueled it. Many of its most active investors are on the sidelines, licking their wounds. As for the 1985 new issues market, it looked nothing like its legendary predecessor. The exotic was out, and the mundane was in. In place of companies whose names ended in "-onics," the year's hot IPOs included an "-ooter," as in Roto-Rooter, the sewer cleaning company, an "-osh," as in OshKosh B'Gosh, the clothing maker, and an "-eese," as in Pasta & Cheese, the food packager and retailer.

To be sure, Wall Street's newfound enthusiasm for down-to-earth companies had much to do with its earlier voyage into the IPO stratosphere. During the record-shattering year of 1983, 673 companies collectively raised nearly $12.5 billion in IPOs—almost four times the amount companies had garnered in the previous record year of 1981. (These figures do not include "best efforts" issues or offerings priced below $1 a share.) In the heady aftermarket, moreover, many new issues soared, only to come crashing back to earth as the investing public lost faith in their ability to perform. Naturally, the stocks that had risen to the highest multiples had the furthest to fall. These were mainly the stocks of young technology companies, one of the more infamous examples being Diasonics Inc., an extraordinarily well-financed maker of medical diagnostic equipment. After going public at $22 a share, more than 70 times its prior year's earnings, it quickly climbed to $27\frac{1}{4}$. Within a year, however, the company was reporting losses, and its stock price had plunged to $5\frac{1}{4}$; last year, it dropped to $2\frac{1}{2}$, before creeping up to around 4. A similar fate befell many other stars of the 1983 new issues market—TeleVideo Systems, Kaypro, and Seeq Technology, to name but three.

WHAT WAS HOT: 1983 and 1985

Investors are a fickle bunch, and in 1985 they turned 1983 on its head.

HOT in '83	HOT in '85
black boxes	black ink
venture capital	family ownership
start-ups	established companies
Hambrecht & Quist	D. H. Blair
glitz	grit
silicon chips	chocolate chips
"multiple" madness	conservative pricing
high hopes	deep management
Sunnyvale, Calif.	Oshkosh, Wis.
creating markets	building market share
promise	performance
Diasonics	Roto-Rooter

Having been bloodied to the tune of several billion dollars, many investors, institutional and otherwise, were less than eager to chase after high-tech IPOs again. During the first nine months of 1985, for instance, makers of electronic equipment and instrumentation accounted for just 2.1% of the IPO dollars raised, compared with 11.2% of the IPO dollars during 1983. Manufacturers of other kinds of machinery and computers didn't fare much better, accounting for only 2.4% of the dollars raised through mid-November 1985, versus 11.6% in 1983.

Moreover, underwriters of high-tech deals really had to *sell* their of-

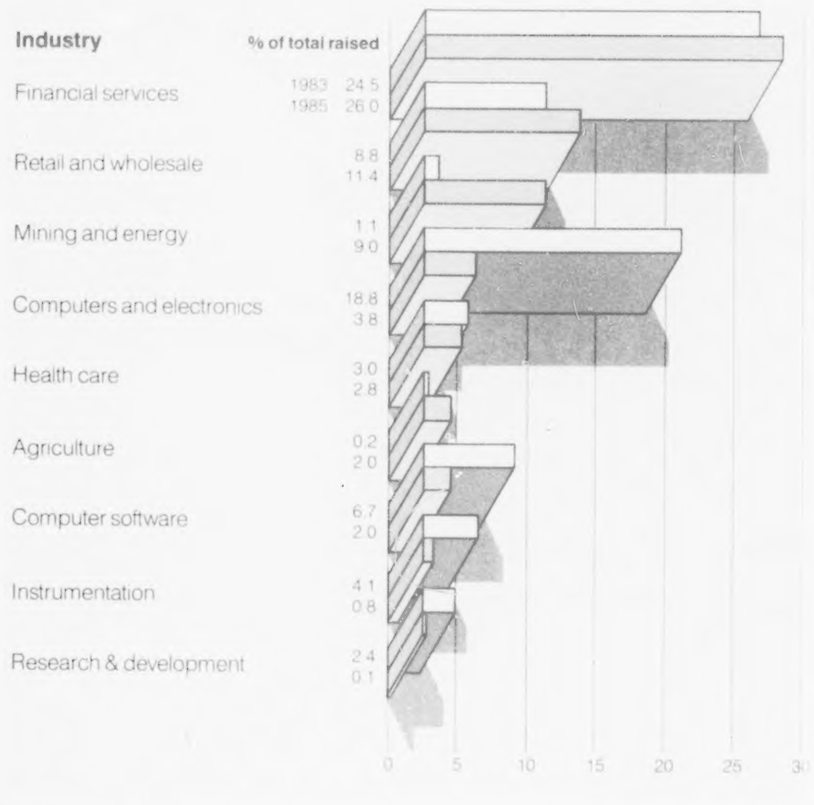
CHARTS BY BRUCE SANDERS

ferings in 1985. That was hardly the case in 1983, when "you filed the prospectus and the crowds appeared," recalls William R. Hambrecht, president of San Francisco-based Hambrecht & Quist Group, which managed 26 offerings that year. Now he finds that investors do their homework and want to be convinced beyond a reasonable doubt that a company will make it—that is, if they are willing to listen at all.

Which is not to say that investors have been turning a deaf ear to new issues in general, or that 1985 was a bad year for IPOs. On the contrary, it was a very good one. Granted, the market started off slowly, but by mid-December, companies had sold $8.1 billion of equity, more than twice what was raised in all of 1984, making 1985 the second most active year ever.

As a rule, investors tended to look most favorably on new issues of companies in changing industries, notably financial services (including banks) and health care, including health maintenance organizations. Another industry segment that picked up a big following in 1985 was retailing and wholesaling. As a group, nonfood retailers and wholesalers raised 11.4% of the IPO dollars in 1985, up from 6.6% in 1984 and 8.8% in 1983. Especially popular were retail chains specializing in consumer electronics, and membership discount stores that sell everything from food to lawn furniture, but only to customers who have paid a membership fee. In recent months, there were five deals in the first category and four in the second.

THE CHANGING INDUSTRY MIX: 1983 and 1985



Technology-oriented issues, which dominated 1983's initial public offerings, were clearly out of favor in 1985, as shown in the chart above, comparing the two markets in terms of the dollars raised by IPOs of companies in specified economic sectors. While issues from financial service companies did well in both years, investors turned away from research and development, instrumentation, computers and electronics, and software during the first three quarters of 1985, favoring low-tech or no-tech industries: mining and energy, agriculture, and retail and wholesale.

Industries aside, the 1985 market required a more circumspect approach on the part of issuing companies. Greed was out. Unlike 1983, when company founders were almost *expected* to use their IPOs for their own enrichment, those looking for personal liquidity in 1985 were wise to be discreet. One who found that out was Austin O. Furst Jr., the 42-year-old founder and chief executive officer of Vestron Inc., a Stamford, Conn., publisher of prerecorded videocassettes. The company's preliminary prospectus, filed last September, indicated that 5.4 million shares were to be sold by the founder and an equal number by the company, raising a total of up to $205 million. After the offering, Furst would not only be richer, by about $100 million, but he would also still own 70% of Vestron's stock. This did not sit well with institutional investors. When Vestron came to market a few weeks later, the offering had been scaled down to $70.2 million, was pegged at $13 a share, instead of the original $16 to $19, and did not include *any* founder's shares.

By the same token, investors were leery of inflated price/earnings ratios. No longer could companies benefit from offerings priced at multiples of 50 or 60 times the previous year's earnings, as many had in 1983. In 1985, multiples generally ranged from 15 to 30. Many investment bankers, in fact, advised clients to *underprice* their IPOs so as to "leave something on the table" for shareholders, who would presumably show their appreciation by supporting future offerings. (All of this, of course, makes you wonder what investment bankers were telling their clients back in 1983—maybe to take the suckers for every penny they're worth—but that's another matter.)

But what most distinguished the 1985 new issues market from its predecessors was the intensity with which investors scrutinized the companies making their initial offerings. Indeed, there were probably fewer opportunities for unproven companies to raise money in 1985 than at any other time in recent years. Investors wanted nothing to do with stunning new concepts—in marked contrast to 1983, when they "were perfectly willing to look over a four- or five-year valley," notes Barry B. Conrad, head of corporate finance at Dallas-based Rauscher Pierce Refsnes Inc. For that reason, investment bankers tended to discourage very young companies from even doing IPOs, with the result that the average age of issuing companies rose to about seven years in 1985, up from three years in 1983, and five years in 1984.

As for the companies that did well in the 1985 market, most of them offered evidence of an ability to weather difficult market conditions and to perform over time. In this regard, investors seemed to be paying particularly close attention to certain key aspects of a company's operation, including:

MANAGEMENT. One thing investors wanted was reassurance that a company's management knew where the business was going, and had the horsepower to get there. That certainly helped The Peanut

Shack of America Inc., a 10-year-old retailer based in Winston-Salem, N.C. A $13-million company, with earnings of $600,000 in fiscal 1985, Peanut Shack had placed 241 of its shops, many of them franchised units, in shopping malls located in 30 states. While most of the company's existing shops sold nuts, candy, confections, and other specialty foods, president and CEO Alan R. Kleinmaier wanted to develop two parallel chains, one selling coffee and tea, the other selling cookies.

To help in this undertaking, Kleinmaier, 39, had brought aboard several proven managers. His general manager, for instance, had experience running his own industrial-equipment sales company for more than 10 years; his marketing vice-president was a 12-year veteran of R.J. Reynolds Industries Inc.; and his chief financial officer had spent five years as an accountant with Deloitte Haskins & Sells.

"The management is young and smart," says Ed Crawford, an investment banker in the Winston-Salem office of Wheat, First Securities Inc., which co-managed the deal. "They showed they had energy and hustle, and the only thing they really lacked was money." Evidently, investors agreed. Peanut Shack had little trouble raising $4.8 million in its August IPO.

PROFITABILITY. Whether a company had deep management or not, investors generally insisted on evidence that it knew how to make money. A case in point is Lancer Corp., a San Antonio–based company that manufactures and sells beverage-dispensing equipment for use in restaurants and soda fountains. Since the late 1960s, Lancer had been supporting its growth with bank debt, retained earnings, and private equity placements. It had enjoyed great success in the market as well, selling its dispensing systems to big-name beverage companies and their bottlers, including The Coca-Cola Co., which had even collaborated with Lancer on designing some of its products.

But most important, the company could show a record of steady earnings growth over the past few years. By the end of 1984, its operating income had risen to 12.3%, with aftertax profits of 6.6% on sales of $19 million. It was a known quantity. "We didn't have some mysterious black box," says George F. Schroeder, 46, who co-founded the business with his older brother. "We're conservative, and our prospectus was clean. There were no inside transactions, and nobody in the company was making more than $85,000." Investors liked what they saw. In its June IPO, Lancer raised a total of $6.9 million, at a solid multiple of nearly 13 times earnings.

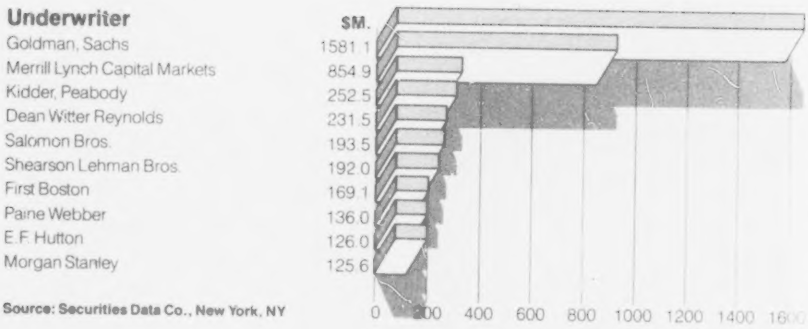
Steel Technologies Inc., a processor of flat-rolled steel, projected a similar image of soundness. The Louisville-based company sells mainly to the Detroit auto companies, their suppliers, and large appliance manufacturers, all of which have become increasingly demanding with regard to quality and on-time delivery. Steel Technologies had risen to the challenge, investing heavily in computerized production equipment. "We process steel to extremely stringent tolerances, to as close as one-half a *thousandth* of an inch," says Daryl A. Elser, president and chief operating officer. "So no one can really confuse us with U.S. Steel."

Nor could anyone confuse its performance with that of Big Steel. While sales were more than doubling, from $19.6 million in 1980 to $49.4 million in 1984, net earnings increased more than ninefold, from $223,000 to $2.1 million. That pleased investors, who bought out Steel Technology's $11.8-million offering at $11.75 per share—about 11 times the previous 12 months' earnings.

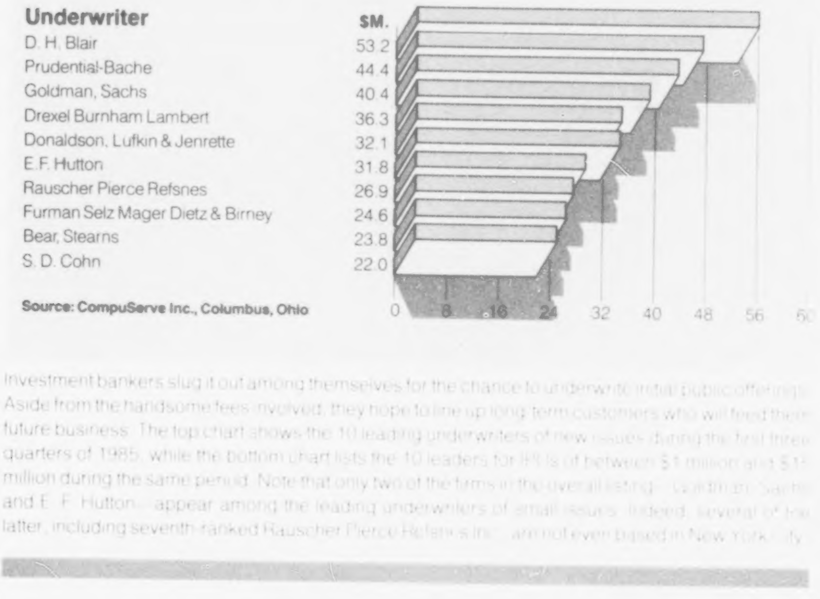
MARKET POSITION. It also helped for an issuer to be recognized as a leader in its market, or as a company with the potential to become one. Central Sprinkler Corp., for instance, is a $30-million manufacturer and distributor of automatic fire sprinklers, with a reputation among contractors for designing some of the industry's most innovative sprinkler heads and valves. The industry, moreover, is growing, thanks to the national trend toward installation of sprinkler systems in both new and old buildings. "There's hardly a high-rise building under construction in this country that doesn't have a sprinkler system in it," says chairman William L. Meyer, one of a group that acquired the company via a leveraged buyout in May 1984. "And the more militant fire marshals become, the more it helps us."

The owners estimated that Central Sprinkler had a 25% to 35% share of a highly competitive domestic market. From a financial standpoint, moreover, the Lansdale, Pa., company looked strong, having earned an aftertax profit of $1.3 million (3.8% of sales) in fiscal 1984, even though its interest expenses had soared as

WHO SOLD THE DEALS?



Source: Securities Data Co., New York, NY



Source: CompuServe Inc., Columbus, Ohio

Investment bankers slug it out among themselves for the chance to underwrite initial public offerings. Aside from the handsome fees involved, they hope to line up long-term customers who will feed their future business. The top chart shows the 10 leading underwriters of new issues during the first three quarters of 1985, while the bottom chart lists the 10 leaders for IPOs of between $1 million and $15 million during the same period. Note that only two of the firms in the overall listing—Goldman, Sachs and E. F. Hutton—appear among the leading underwriters of small issues. Indeed, several of the latter, including seventh-ranked Rauscher Pierce Refsnes Inc., are not even based in New York City.

a result of the buyout. On the strength of that record, Central Sprinkler raised $8.3 million in its May IPO, with investors paying $12.75 per share, or about 16 times earnings of the previous year.

That was not the end of it, however, for Central had left quite a lot "on the table." By early September its stock was trading at nearly $17, allowing Central to return to the market and raise another $17.3 million in subordinated debt at a bargain rate of 8%. The company is using the money to pay off its bank debt and to fund expansion. As for the new investors, they have the right to convert their 25-year bonds to shares of common stock as soon as the price of Central's stock reaches 20⅛.

Market strength was an equally important factor for other companies entering the public equity market—notably Roto-Rooter Inc., the $28-million business that has been cleaning America's stopped-up drains for a half century. Formerly a private company, Roto-Rooter had been acquired in 1980 by Chemed Corp., a public company in Cincinnati, which continues to own more than 60% of the business after the offering. Sewer and drain cleaning may not be the most glamorous business in the world, but neither is the need

THE BEST-PERFORMING NEW ISSUES OF 1985

Rank & Company	City & State	Offer Size ($M)	Adjusted price	Price 11/21/85	% change	Business Description
1. ENTERTAINMENT MARKETING	Houston, TX	$3.0	2	6⅛	206.3%	Distr. consumer electronics prods.
2. IDENTIX	Palo Alto, CA	5.0	4	10½	162.8	Mfr. fingerprint identification equip.
3. CONTROL RESOURCE INDUS.	Michigan City, IN	3.3	5	12¼	145.0	Devel. air filtration systs.
4. PDA ENGINEERING	Santa Ana, CA	7.3	7¼	14½	100.0	Devel. software for mechanical CAE
5. SONEX RESEARCH	Annapolis, MD	2.5	5	10	100.0	R&D on efficient combustion control
6. PRAXIS PHARMACEUTICALS	Beverly Hills, CA	4.0	1½	$2\frac{13}{16}$	87.5	Devel. pharmaceutical compounds
7. LSI LIGHTING SYSTEMS	Cincinnati, OH	10.0	8⅓	15⅝	87.5	Mfr. outdoor lighting systs.
8. METALBANC	Miami, FL	1.1	1	1⅞	87.5	Purchase & sale of precious metals
9. CONSOLIDATED STORES	Columbus, OH	33.4	14½	27⅛	87.1	Retail close-out merchandise
10. VIDEO IMAGE	Oklahoma City, OK	1.6	1¾	3⅛	78.6	Mfr. instructional video prods.
11. AUTODESK	Sausalito, CA	15.4	11	18½	68.2	Devel. CAD software
12. INTL. AMERICAN HOMES	Union, NJ	5.4	3	5	66.7	Acquires regional home builders
13. ANITEC IMAGE TECHNOLOGY	Binghamton, NY	26.4	11	18⅛	64.8	Mfr. photographic supplies
14. AMER. CITY BUS. JOURNALS	Kansas City, MO	9.2	10½	17¼	64.3	Pub. metropolitan weekly business newspapers
15. AI ROSS LOGISTICS	Keasbey, NJ	2.8	1	1⅝	62.5	Refurbishes, transports structural steel
16. PASTA & CHEESE	Long Island City, NY	5.0	6	9¾	62.5	Mfr. pasta products
17. BRAINTREE SAVINGS BANK	Braintree, MA	2.2	10½	17	61.9	Savings bank
18. LANCER	San Antonio, TX	6.9	9½	15¼	60.5	Mfr. beverage dispensing systs.
19. SBARRO	Melville, NY	11.9	10⅜	16½	59.0	Operates chain of Italian restaurants
20. UNION FEDERAL S&L	Los Angeles, CA	19.2	8¾	13⅞	58.6	S&L association
21. CENTRAL SPRINKLER	Lansdale, PA	8.3	12¾	19¾	54.9	Mfr. sprinkler syst. components
22. CAROLYN BEAN PUBLISHING	San Francisco, CA	3.8	6	9¼	54.2	Pub. note & greeting cards
23. NUVISION	Flint, MI	6.8	113¼	20¼	52.8	Mkts. eyewear & optical prods.
24. SALICK HEALTH CARE	Beverly Hills, CA	16.8	9⅓	14⅛	51.3	Prov. facilities & svcs. for kidney dialysis
25. FIRST FEDERAL S&L	Kalamazoo, MI	10.2	9½	14⅜	51.3	S&L association
26. H&E VENTURES	Minneapolis, MN	1.6	2	3	50.0	Devel. & mkt. computer software
27. TELECALC	Bellevue, WA	2.6	6	9	50.0	Prod. computer-based phone info. systs.
28. VIDEO DISPLAY	Stone Mountain, GA	2.4	4¾	7⅛	50.0	Mfr. cathode ray tubes
29. GRIDCOMM	Danbury, CT	3.0	6	9	50.0	Devel. LAN data transmission prods.
30. AMER. VIDEO TELECOM.	Oceanside, NY	1.0	1	1½	50.0	Mfr. software & hardware for video telec.
31. WSTRN. FED. SAVINGS BANK	Mayaguez, PR	8.2	8	11⅞	50.0	Operates a savings bank
32. CFS FINANCIAL	Fairfax, VA	8.6	9	13¼	48.4	Operates a savings bank
33. IVERSON TECHNOLOGY	McLean, VA	5.6	8	11¼	47.2	Modifies comp. prods. to customer specs.
34. ISCO	Lincoln, NB	7.7	10¼	14¼	40.6	Mfr. scientific instruments
35. BINGHAMTON SAVINGS BANK	Binghamton, NY	15.8	8¾	12	39.0	Savings bank
36. GATEWAY BANK	South Norwalk, CT	43.2	17	23⅛	37.1	Operates a savings bank
37. MILTOPE GROUP	New York, NY	9.1	13	17½	36.0	Mfr. computer peripherals for military
38. CIRCADIAN	San Jose, CA	7.8	6	8	34.6	Mfr. ambulatory ECG systs.
39. ROTO-ROOTER	Cincinnati, OH	13.5	13½	17¾	33.3	Prov. sewer, drain, pipe svcs.
40. BARRISTER INFO. SYSTS.	Buffalo, NY	6.3	9	11¾	31.5	Assembles computerized legal info. systs.
41. OSHKOSH B'GOSH	Oshkosh, WI	19.7	25	32½	30.6	Mfr. clothing
42. AMER. TECHNICAL CERAMICS	Huntington Sta., NY	7.3	6¾	8¾	29.6	Mfr. ceramic & porcelain capacitors
43. BIOCRAFT LABORATORIES	Elmwood Park, NJ	25.2	14	18⅛	29.5	Mfr. generic drug prods.
44. INTL. CONTAINER SYSTS.	Tampa, FL	3.0	5	6⅜	27.5	Devel. plastic cases for soft drink bottle
45. BRIDGE COMMUNICATIONS	Mountain View, CA	24.0	12	15¼	27.1	Supplies LAN systs.
46. APPLE BANK FOR SAVINGS	New York, NY	44.7	12¾	16	25.5	Savings bank
47. SYLVAN LEARNING	Bellevue, WA	7.7	9	11¼	25.0	Franchises child learning ctrs.
48. SANFORD	Bellwood, IL	15.3	17	21	23.5	Mfr. disposable markers
49. XL/DATA COMP	Hinsdale, IL	20.0	15	18½	23.3	Sells IBM computer systs.
50. ENGINEERED SUPPORT SYSTS.	St. Louis, MO	9.8	9¾	12	23.1	Mfr. defense systems

Does not include "best-efforts" issues or offerings for less than $1 per share.

The chart above lists the top 50 new issues during the first three quarters of 1985, ranked according to the percentage increase in share price from the stock's issue date through November 21, 1985 (the most recent date available prior to publication).

for it apt to disappear, and Roto-Rooter certainly has the name recognition needed to attract customers. In any case, investors were willing to pay a healthy 25 times earnings, as Roto-Rooter's IPO raised $13.5 million last June.

Name recognition also helped OshKosh B'Gosh Inc., a leading maker of work wear and children's clothing. Overalls may be overalls, but the Wisconsin company had managed to turn theirs into a fashion item. "It's a brand name people know," says David Coolidge, who heads the corporate finance department at William Blair & Co., headquartered in Chicago. He notes as well that the primarily family-owned company, which earned $12.8 million on 1984 sales of $137 million, "was a lot more solid than many public companies." That perception was certainly a factor as OshKosh raised $21 million in its IPO last May.

You might wonder whether last year's investors were *ever* willing to support a company that didn't have all the pieces in place. They were, but not very often. Carolyn Bean Publishing Ltd., for example, was able to do a $3.7 million IPO last July, despite the fact that it had lost $333,406 on 1984 sales of $2.3 million. In fact, it had never earned a dime during the five years of its existence.

But the San Francisco company does occupy a strong position in the fastest-growing segment of the $3-billion greeting card industry, the production and distribution of "alternative" greeting cards, and that fact weighed heavily with investors, according to investment banker Robert Fagenson, a director of Starr Securities Inc., in New York City. He points to Carolyn Bean's Sierra Club cards, its comic series by "Mrs. Bagelman," and a new line called "True Wit"—diverse products that founder Lawrence Barnett, 37, proudly maintains are "about as far away from Hallmark Cards as you can get." Investors were apparently confident that Carolyn Bean would become highly profitable once the company had money for additional personnel and better internal systems. In the greeting-card business, says Fagenson, "gross margins average 60% to 70%. And these guys understand the business as well as anyone."

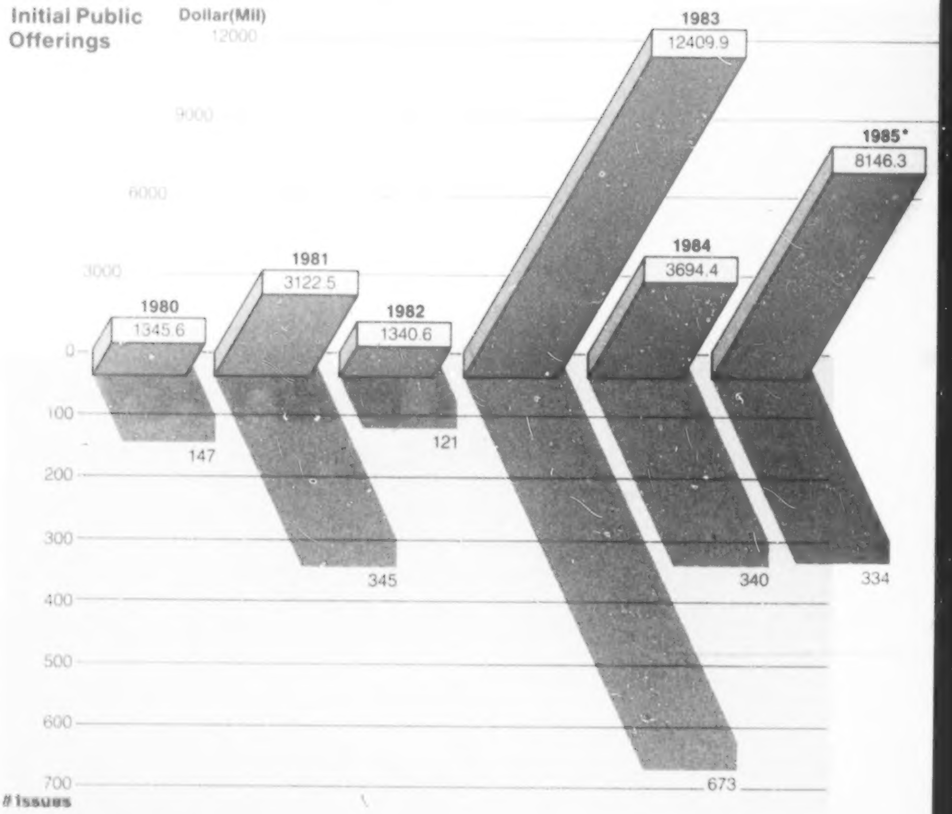
So what does all this mean to a company contemplating an initial public offering in 1986? In all likelihood, not very much. Wall Street works in capricious and curious ways. What appeals to investors during one period of time is often not what attracts them during another.

This is not to suggest that the financing "window" for, say, growing retailing companies will slam shut anytime soon. But it might—and quite possibly for reasons that have nothing to do with a company's own performance and everything to do with such factors as Wall Street's attitude toward retailing stocks in general. The only real certainty, it seems, is that investors' tastes and appetites are always changing. And when investors get bored with, or spooked by, an industry sector, they run the other way, as they ran from technology stocks in 1985.

If you wait long enough, however, the pendulum usually swings back. Some investment bankers and analysts are already beginning to wager that a new crop of technology companies will come to market with their IPOs in 1986. Once the dead wood has been cleared away, and the survivors start to perform, the market will be looking for more new technology issues, they say. "It won't be a long list, but more than we saw in 1985," predicts Richard Franyo, managing director of corporate finance at Baltimore-based Alex. Brown & Sons, which managed 21 high-tech deals in 1983 and 2 in 1985. Franyo also believes that the next batch of technology issues will have to be stronger and less speculative than their predecessors to meet the tougher standards of today's investors.

Hambrecht agrees. "We think there will be markets for good companies in 1986, but not at 1983 prices. . . . And some companies are going to have to wait." Indeed, he and many others contend that the painful memories of 1983 will continue to influence the IPO market for a long time to come. "There was so much blood spilled," he says, that it may be 10 years before all is forgotten. Why 10 years? "That's just how long it usually takes to produce a new generation of investors." □

SIX YEARS OF NEW ISSUES



***As of December 13, 1985**

Source: Securities Data Co, New York City

Does not include "best efforts" issues of offerings for less than $1.

The 1980s have witnessed an historic boom in initial public offerings by every measure. The chart above compares the IPO markets of 1980 through 1985 in terms of both the total dollars raised (top) and the number of new issues (bottom) for each year. (The figures do not include "best efforts" offerings, or issues priced at less than $1 per share.) Actually, 1985 was the second best year ever, while 1981 and 1984 were not far behind. They all pale in comparison to the incredible new issues market of 1983, however, when 673 companies raised a whopping $12.4 billion.

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Cover photo: Ralph King
Cake by Montilio's Cakes and Pastry, Quincy, Mass.

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Fast-food restaurants, whether franchised or independent, may rely on customers to put their own meals together. "If you want to see a sophisticated fast-food operation, go into a 7-Eleven," says Atid Kaplan, professor of hotel and restaurant management at the University of Denver. To buy lunch at a 7-Eleven, customers pick out their food, heat it in a microwave, and pay a cashier—the only employee involved. —*Virginia Inman*

KICK THE TIRES

Car Dealers Hit The Road Once Again

THEY CALLED IT "AUTO ROW," the 10-mile stretch of Virginia Route 7 banked with gleaming chrome. Families with kids came here, young hot-rodders and retirees, all to kick the tires. But now land values outside Washington, D.C., are soaring so high that car dealers are priced off the lots. Fading away is another bit of small-business Americana.

Auto dealers around the nation are hitting the road again. Soaring land values pushed them from city to suburb in the late 1960s, then to the far suburbs in the 1970s. Now development is uprooting them again: many dealers are losing their leases or selling their land.

Where to now? Some dealers are moving still further into exurbia; some are opening joint autoparks, multidealer groups that share land and facilities. Others are putting small branch showrooms, often with computerized catalogs, into malls and other high-traffic areas. They exile the service and parts divisions to a less costly location.

Experts are sure that customers won't trade a turn behind the wheel for a seat at the computer terminal. "They gotta smell 'em, they gotta drive 'em," says John Rummel, a Dodge dealer in Bloomfield Hills, Mich. "You've still gotta have something to touch." —*N.M.*

ENGLISH AS A SECOND LANGUAGE

Or, as President Reagan might say, throw the little ones back

"A violation of the four-ounce standard occurs if the average of the aggregate weights of the 10 smallest scallops in all the one-pint samples taken fails to meet the four-ounce standard. If a violation of the four-ounce standard is found among those undeclared scallops from a particular vessel and being treated as a separate entity for the purpose of sampling, the entire amount of scallops in possession or control will be deemed in violation. If a violation of the four-ounce standard is found among scallops possessed by a dealer/processor, only those scallops being treated as a separate entity for the purpose of sampling (i.e., the total amount of scallops, up to 10% of which has been drawn as samples) will be deemed in violation."

—From a final rule published by the U.S. Department of Commerce, effective January 1, 1986.

SCORECARD

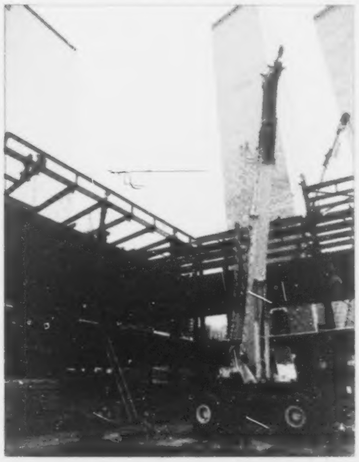
By Joshua Hyatt

Building Boom: A Shaky Foundation

Are we heading for a commercial real estate crash?

Most cities already have a glut of office space, especially when you consider the amount of construction still underway. Chicago leads the nation with 40.5 million square feet of vacant space, 18.9 million of which is under construction. Dallas isn't far behind, with 39.2 million square feet of vacant offices, 21.6 million of which is just going up. "There are still a lot of people putting money into bricks and mortar," notes Gregg Witt, a vice-president of Frain Camins & Swartchild, a Chicago real estate brokerage.

The national vacancy rate now stands at just over 16.3%, compared with about 6% five years ago. So why are builders still frantically putting up girders? Available credit, attractive interest rates, and special tax incentives have lured plenty of investors. With tax reform threatening to floor many of these incentives, investors feel their window of opportunity is closing. "Tax reform could change everything," says Philip Braverman, chief economist at Irving Securities Inc. "That's why people are rushing to bring buildings to completion."



JOHN DEANE

Office construction continues apace, with a 16.3% national vacancy rate.

Office buildings, like battleships, take about two years to complete. When the current crop is finished in 1987, developers are going to have plenty of trouble digging up tenants—especially if a recession hits at the same time, as many economists expect. "By 1987, the commercial real estate market will be in deep trouble," Braverman predicts.

Here are the eight cities with the most vacant office space—including offices under construction—for the first half of 1985.

City	Total vacant square footage (in millions)	Vacancy rate
Chicago	40.5	11.3%
Dallas	39.2	23.1
Houston	38.1	26.2
Los Angeles	34.3	13.3
San Francisco	25.4	18.5
Atlanta	17.6	18.8
Denver	16.3	21.[illegible]
Boston	16.2	12.7

Source: The Office Network Inc., Houston

INSIDER (continued)

PHOTOGRAPHS BY KEITH GLASGOW

FOR FIVE YEARS, *Rick Scoville's Artesia Waters successfully played the Texas David to Perrier's Goliath . . .*

The Great Texas Water War

Rick Scoville started out to "kick Perrier in the derrier," but he forgot to cover his own.

BY CURTIS HARTMAN

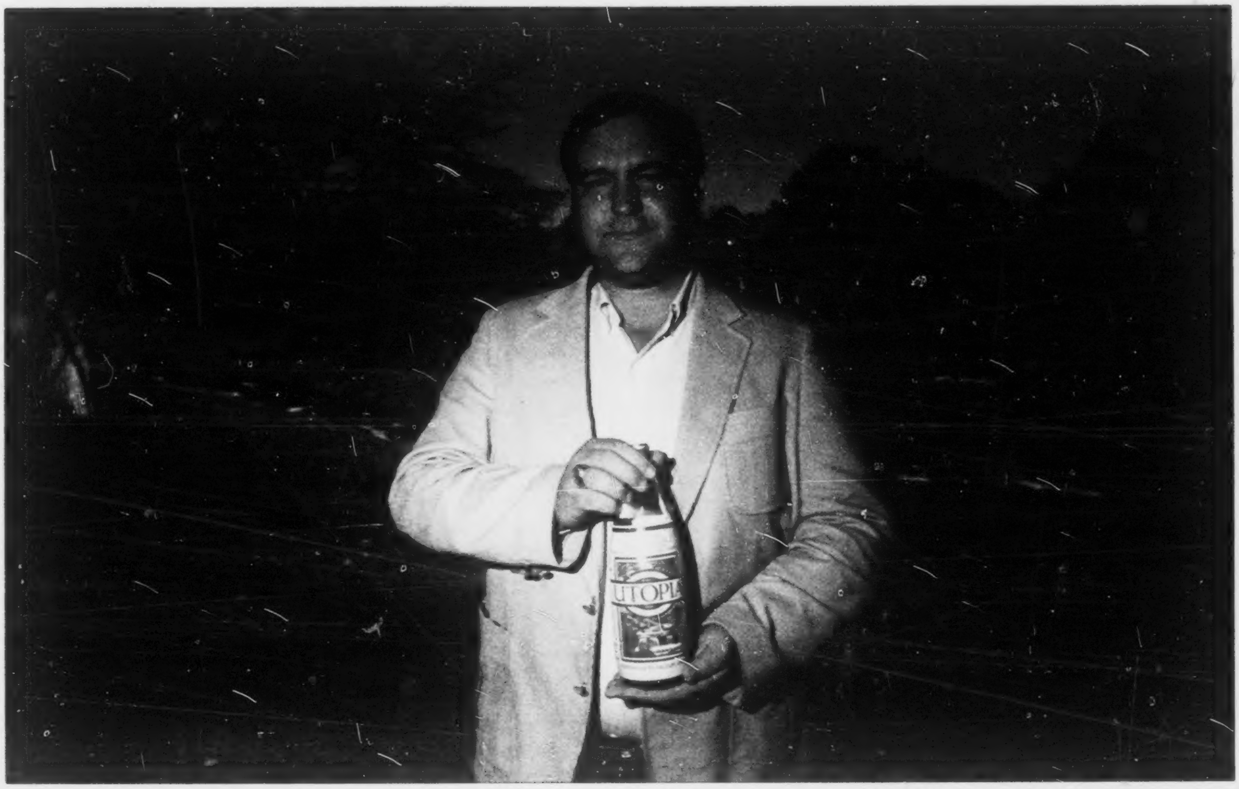
In any other state, it might never have come to this sort of shoot-out between the two men. But this was Texas, after all. Texas has always bred its men stubborn.

They squared off in the supermarket aisles of the boom towns of the old Southwest. One was a city kid up from the streets, brash and feisty, a shameless self-promoter who in his ads had promised "to kick Perrier in the derrier" when he introduced Artesia Sparkling Mineral Water in 1980. His challenger was a soft-spoken country boy from the hills, a fourth-generation Texan who hoped to save the family ranch by selling the water he used to dip from his daddy's spring. As a pair of Texas archetypes, they might have stepped out of the pages of some potboiling saga of sweat and dust and family feuds.

Their disagreement was nothing much more than a public spitting contest, waged through the columns of the local press. But by the fall of 1985, it had escalated into a full-blown legal brawl. The charges included copyright infringement, unfair competition, fraudulent advertising, and violations of federal racketeering statutes. At issue, really, was nothing more than bragging rights: which man could claim that his was the more genuine of the homegrown Texas waters.

Even today, there are people in San Antonio who think Rick Scoville and Ron Bownds a bit squirrelly, who wonder if this water feud of theirs has gone too far. On the other hand, water has always been a precious commodity in these parts. In the past century, it was sustenance for thirsty cattle and hard-driving cattlemen who made the yearly trek north to Abilene. Today, it is a pricey designer drink. Water, in fact, is now big business in Texas and in every other state, the fastest-growing beverage on supermarket shelves. And with profit margins ranging to 25%, neither Scoville nor Bownds was eager to relinquish his claim.

San Antonio boasts that it's the most entrepreneurial of American cities, and the story of Rick Scoville and Artesia Waters would be instantly recognizable to any student of the entrepre-



. . . **UNTIL RON BOWNDS** *discovered he could out-Texas Scoville with Utopia Sparkling Water from the family spread.*

neurial revival. Scoville had been transplanted at age five from West Hartford, Conn., to Kansas City, Mo., and then San Antonio, where he grew up a scrappy, redheaded Anglo attending working-class Mexican-American schools. By the third grade, Scoville had a newspaper route and an egg route, and he had cornered the market on painting fluorescent house numbers on the curbs of his neighborhood's streets. An erratic student, Scoville flunked out of the University of Houston and served a tour of duty in Vietnam before returning to complete his degree. Launched into the corporate world at H. B. Fuller Co., a manufacturer of industrial adhesives, he rose quickly to become one of the company's top 10 salesmen. And just as quickly, he found himself very bored.

Inspiration came in 1979, while Scoville was cooling his heels waiting to make yet another sales pitch. Picking up a magazine, he read about Perrier's dramatic rise in the mineral-water business in the United States. He didn't know much about water, really, except that the water in San Antonio, purified by its 176-mile journey over the limestone of the mineral-rich Edwards Aquifer, tasted pretty good to him. He had seen the health-conscious crowds at his exercise club. He had heard the refrains of club-soda-with-a-twist at his favorite bars. If Perrier could make money shipping bottled water all the way from France, Scoville figured he could make *beaucoup d'argent* right at home.

The initial tests bore out his hunch: the waters of the Edwards Aquifer were lower in sodium and higher in magnesium than Perrier's. With $25,000 borrowed from a Houston bank, he set up shop in an old Pic-A-Pop Bottling plant in San Antonio, just off the freeway. There, he dug a well and began pumping. Since Perrier then came in three different size bottles (6$^1/_2$ ounce, 11 ounce, and 23 ounce), Scoville put his in Texas-size containers (7 ounce, 23 ounce, and 32 ounce). More to the point, he set his prices strategically below the foreign imports. And in contrast to Perrier's understated green bottles, Scoville's new amber bottles featured a white and blue waterfall on the label, topped proudly with a Texas Lone Star. Say *au revoir*, Perrier, say howdy, Artesia.

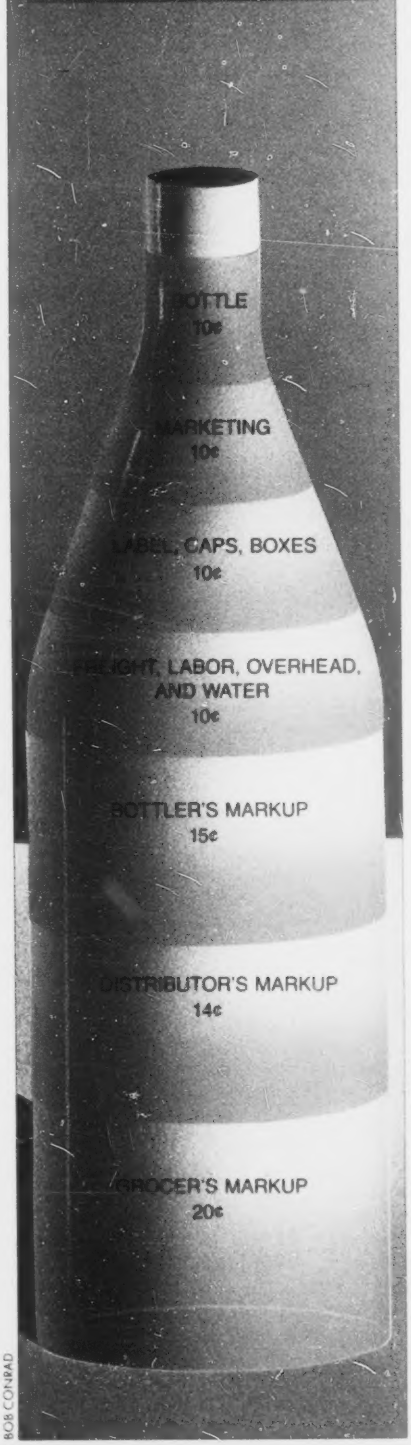
At times, Scoville sounds nostalgic for the rough and tumble of those early days of 1980. Unable to find distributors, he sold his water himself from the back of his van, "a bit like an old-time medicine salesman." To convince bar owners to try his product, he would cart in samples of Perrier, Artesia, and plain club soda to run blind taste tests in such cities as Dallas and Houston. And in supermarkets, where grocery managers would line up 10 rows (or "fronts," as they are called) of Perrier next to 2 of Artesia—in a very real sense dictating consumer preference—Scoville would quietly walk down the aisles and rearrange the lineup when the managers weren't looking.

That first year, Scoville lost money: with only $112,000 in sales, his volume was not enough to cover overhead and pay for a modest advertising campaign on billboards and radio. So he tried another marketing strategy. Rather than rearranging bottles on supermarket shelves, he began offering premiums to retailers that would give his product prominence: build a small display and win a satin jacket; build a large display and win a pool umbrella. And instead of paid advertising, he began to test the potential of free advertising—public relations—by pitching himself to the Texas media as the patriotic underdog, the American David challenging the French Goliath. Why send dollars abroad, he would ask, when you can have "a star-spangled, sparkling mineral water from deep in the heart of the Texas hill country"?

The media found him irresistible. And not just the local media, either. For remember, this was the era of Texas Chic, of John Travolta and Gilley's and all that. Furthermore, here was a family business worthy of the name. Scoville's 64-year-old father, Bob, kept the production line clanking; his mother, Jeanne, also 64,

THE ECONOMICS OF BOTTLED WATER

A typical liter of bottled sparkling water costs 89¢. Here's where the money goes.



BOB CONRAD

served as customer-service representative, and his sister-in-law Lenetta Scoville ran the office. *The Wall Street Journal*, *Texas Monthly*, *Beverage World*, and *Beverage Industry*—everybody wanted a piece of the story. And each time an article appeared, he'd make a copy and send it around to the next batch of potential interviewers.

By early 1985, Scoville had accumulated a media package as thick as the San Antonio white pages—and sales figures to match. Revenues were approaching $3 million and were expected to double the following year, with profits holding from 10% to 15% of sales. By now, his was the top-selling sparkling water in Texas, bigger even than Perrier, with distribution that spread to New Mexico, Florida, Oklahoma, Louisiana, and Georgia. INC. listed Artesia 95th on its 1985 list of the 500 fastest-growing privately held companies in America.

To many in San Antonio, it now looked as if Rick Scoville had made it. There was the custom-modified Porsche. The gold gleaming from wrist and neck. The narrow pink tie set off against the pleated white shirt, worn open over his chest. Unlike some entrepreneurs, Scoville never intended to grow old with his creation. His hope had always been to grow a company and sell out, while he was still young enough to boogie through the night under Houston's bright lights. Now, as his fortieth birthday rolled around, the dream looked within his grasp.

But that was before Ron Bownds came along.

Rick Scoville admits he overreacted to the challenge—it's the redhead in him, he says. "I'm the James Dean of the bottled-water business. I live in the fast lane."

He was probably behind the wheel of his Porsche when he first heard the radio ads last summer for something called Utopia Sparkling Water, from "deep in the heart of the Texas hill country." And before long, billboards along the freeway were picturing the new product with a pretty blue waterfall right there on the label. The advertising appealed to Texas pride, and stressed purity and health: tests showed that Utopia Sparkling Water had less sodium and more magnesium than any of its competitors.

To Rick Scoville, it was pretty clear that somebody was trying to do to him what he had spent six years doing to Perrier. It was a "me-too" copy, as far as he was concerned, and he was riled. But up in the tiny town of Utopia, population 350, Ron Bownds, the creator of Utopia Sparkling Water, was telling reporters that Scoville had it all wrong. "I didn't start the company with any kind of marketing strategy. I just thought people would enjoy a water from Utopia."

If Ron Bownds had not started out with a marketing strategy, he discovered one quickly enough. And his well-orchestrated campaign to out-Texas the original Texas water company became something of a press agent's dream. Bownds was a natural for the role, what with his muddy cowboy boots, silver belt buckle, and a wad of smokeless tobacco always wedged in his cheek. People in San Antonio would see him driving through town behind the wheel of a four-wheel-drive wagon, with a blue plastic spittoon mounted on the dash. A public relations agency was hired to stir up some attention, and journalists interested in the story would be invited to Utopia to eat chicken-fried steak in the local café. They'd hear Bownds recount the tales of his great-grandfather's covered-wagon trek to the Sabinal Canyon River Valley, or his own stint as deputy sheriff in nearby Bandera, the "cowboy capital of the world." On the way to see the spring, Bownds might point out a deer grazing in the oat fields. Then he'd show the reporters his source, bubbling up cool and clear, a constant 68 degrees, spilling over into a perch-filled pool—"the old fishin' hole."

Bottling water from the family spring had not always been Bownds's ambition. At an early age he realized the family's 600 acres could no longer support a working ranch. And so, like countless Texans before him, he set out in search of oil—in his case, as the senior Gulf Coast petroleum geologist for a private independent driller. Then, in 1983, the company wanted to transfer Bownds from San Antonio back to Houston. Bownds had always hated Houston for lots of reasons, including the drinking water. And he was loathe to give up the family ranch. Backed by $150,000 in savings, Bownds decided to "switch natural resources" and went into water, bottling noncarbonated spring water from the family spread for homes and offices in San Antonio.

It was every bit as humble a beginning as Rick Scoville's. Bownds and two employees worked from a makeshift plant behind his mother's house. "God-made water" he called it, but even with the Deity behind his company, Hill Country Spring Water of Texas Inc., profits were limited by low margins and relatively high shipping costs. He needed something more lucrative. And down in San Antonio, Rick Scoville was pointing the way.

Utopia Sparkling Water began appearing in the middle of the hot San Antonio summer of 1985, along with a strong advertising campaign. It wasn't long before the challenge to Scoville's Artesia spilled over into the columns of Texas newspapers. "Our water is from a place called Utopia. It's spring water. That has some mystique," Bownds boasted to *Austin American-Statesman*, in an article headlined "Water War Heats Up." Then, referring to the competition, Bownds said, "His water is well water. There's only so much you can say about a well. . . . I'm not knocking it, but it's not much different than San Antonio drinking water."

"Utopia is just a very weak copy of Artesia," Scoville snapped. "Our product has a real clean, crisp taste. I find that Utopia has a bitter aftertaste. Maybe that's because he hauls his water to a bottling place where they bottle all kinds of soft drinks."

The next day, Scoville had his lawyer send a letter to Utopia, accusing it of infringement of Artesia's copyright, and threatening legal action. It was a sound strategy, and one that, in hindsight, Scoville should have stuck with. But that was hardly his style: he had a few letters to write of his own. He wrote to people like Lenwood L. Scholtz, of the Texas Department of Health, and Jim Mattox, the state's attorney general, charging that Utopia had lied when it claimed to be "natural and pure sparkling", as with every other sparkling water, carbon dioxide was added during bottling. To the largest nightclub owner in Texas Scoville wrote, "Mr. Bownds has misrepresented his product. . . . I feel your customers should not be duped, nor should you!" To restaurateurs and merchants he insisted that Utopia was worse than a copycat: it was a hazard to the consumer because of the possible pollutants on the surface of the spring. KTFM, a local radio station, and Rollins Outdoor Advertising Inc., the company responsible for Utopia's billboards, received letters putting them on notice that Scoville planned to seek "legal remedies" against Utopia; he demanded that they kill the spots and tear down the signs. "Please keep me posted," he wrote the state's food brokers, "so we can *bury* this product!" To many, Scoville seemed like a man possessed.

Utopia's sales had started strong: in the first week, H. E. B. Food Stores, a large food chain in Texas, sold 10 times more than they had projected. But by the end of the month, Bownds was finding that he was not expanding as fast as he had planned. There was nothing he could put his finger on. It was just that food brokers now seemed hesitant to return his telephone calls, and restaurants that had initially agreed to carry his water suddenly backed out.

He discovered the problem soon enough, when the general manager called from KTFM. The radio station had just received the letter from Scoville. "I had expected competition," Bownds remembers. "I had expected the big boys to outspend me 200 to one. But those letters were beyond what I expected.

"I just wanted to be left alone. But the best way to rile me up is to attack my livelihood. It's in my blood to be feisty. It's a Texas tradition."

His lawsuit was filed late in August in Texas District Court. In a 16-page complaint, Bownds outlined Scoville's activities, including the letters and comments to the press. Bownds charged that Scoville's comments "were false, were known . . . to be false, and were made with the malicious intent of destroying goodwill in [Utopia's] products, slandering [Utopia], and unfairly compromising [Utopia's] position in the marketplace." The letters, he said, were "a systematic program of interfering with the existing and prospective contractual or business relationships." Furthermore, by using the mails to interfere with interstate commerce, Bownds accused Scoville of violating the Racketeer Influenced and Corrupt Organizations Act. Bownds asked the court to enjoin Scoville from continuing with his campaign, and to award him actual and punitive damages.

ARTESIA
ARTESIA
UTOPIA
SPARKLING
WATER
UTO
Perrier
Perrier
Perrier
Perrier

THE LOCALS WERE SO BUSY BATTLING EACH OTHER
that they lost sight of the real competition.

Scoville met the challenge with bluster, telling the local papers he had his own plans for a countersuit. And yet, despite the failure of Utopia to gain more than a foothold in the local market, the situation seemed to be slipping from Scoville's control. His letters had left bad feelings within the business community. "I just hate to see that kind of conflict," complained George Farias, the bottled-water buyer for San Antonio's Sun Harvest Farms supermarket chain. "We're disgusted," was how J. R. McIntyre, the general manager of Rollins Outdoor Advertising, summed up the reaction. From Utopia, Bownds continued to charm the local press, which took a keen interest in the story, while Scoville stayed hunkered in his bunker. In conversations with several local reporters, Scoville seemed increasingly hostile and strident. "I was used to being the underdog," he explained. "We had played on the theme of the underdog versus number one heavily. Now we were number one ourselves." Being the overdog required a different strategy. And Scoville never discovered one.

Up in Greenwich, Conn., Ron Davis might have been excused if he'd allowed himself to gloat. For years, Rick Scoville had been taking potshots at Perrier. Now Artesia's water wizard was getting a taste of his own medicine. Scoville had written Davis, as president of the Perrier Group of America, looking for an ally in his latest crusade against Utopia. But as president of the International Bottled Water Association, the Perrier executive found it more diplomatic to take the high ground.

"It's ironic that two Texas people compete," he mused. "It's foolish. I think they would be a lot bigger a lot faster if they had a focus that was bigger."

To Davis, that bigger focus means such soft-drink giants as The Coca-Cola Co. and PepsiCo., at whose expense he expects the bottled-water market to grow to a $4-billion-a-year industry by the year 2000. And to meet the challenge, Davis has increased Perrier's already sizable budget for promotion and advertising, and introduced three new flavors (orange, lemon, and lime). Perrier had also become a regional bottler in its own right, buying up such local brands as Poland Springs, in New England, Calistoga Mineral Water, in California, and Oasis Bottled Water, in Texas. The regionals would allow Perrier to expand its share of the water market by recapturing consumers who preferred to buy American. It would also allow the company to control an increasing number of the "fronts" on the all-important supermarket shelves.

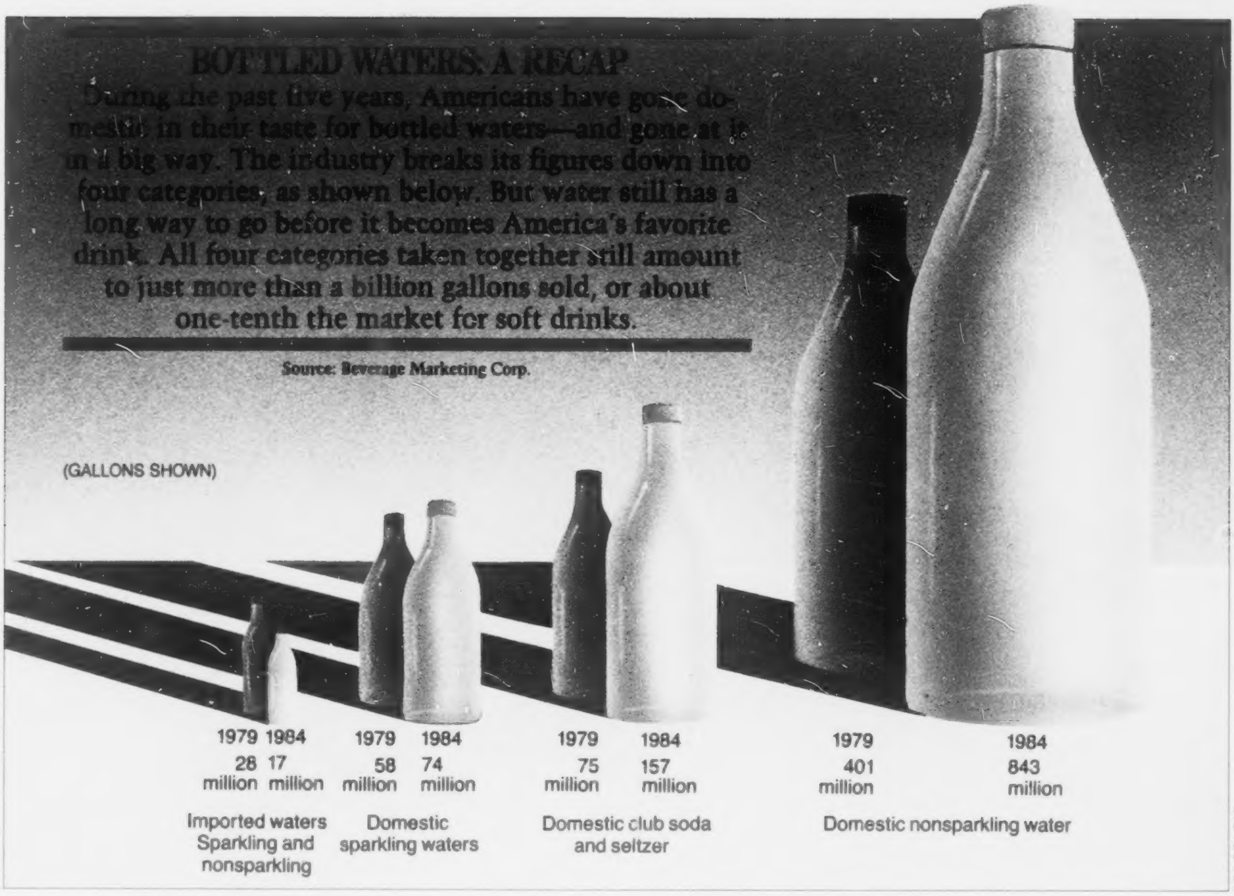
It is just such pressure from Perrier, in fact, that finally forced Rick Scoville and Ron Bownds to call a halt to their feud. The terms of the agreement, reached last November, are confidential, and both parties are pledged not to talk about each other, or their dispute.

In a sense, they had no choice. By most estimates, the next two to five years will see a major consolidation in the water business, from which only a handful of players will survive. After that, according to Hank Forrest, director of sales and mar-

BOTTLED WATERS: A RECAP

During the past five years, Americans have gone domestic in their taste for bottled waters—and gone at it in a big way. The industry breaks its figures down into four categories, as shown below. But water still has a long way to go before it becomes America's favorite drink. All four categories taken together still amount to just more than a billion gallons sold, or about one-tenth the market for soft drinks.

Source: Beverage Marketing Corp.



BOB CONRAD

keting for Utopia, the industry will be left to national companies with enough money to support national television advertising. Perrier will be one, of course. Anheuser-Busch Beverage Group Inc., which just bought New York–based Saratoga Springs Co.'s Sparkling Mineral Waters, may well be another. And the soft-drink companies might jump in too—certainly it would be less risky than switching formulas for a sliver of the cutthroat cola market.

Ron Bownds hopes Utopia will be among the national brands that survive. Since he filed his suit last summer, sales have been growing by a third or more each month, and distribution has already spread to Arkansas, Oklahoma, Louisiana, and California. Within a few months, Utopia will introduce orange, lemon, lime, and cherry flavors, and offer plastic containers for vending machines and airlines. A new half-million-dollar plant is under construction to bottle the expanded line. And to distribute it, Bownds looks to shift from food brokers, who bring everything from soup to nuts to stores once a week, to beer distributors, who make more frequent deliveries and specialize only in beverages. The Anheuser-Busch distributor in Yonkers, N.Y., has already taken on the Utopia line.

In fact, if things go according to plan, Ron Bownds expects to be shipping Utopia overseas before too long, perhaps starting with Perrier's home turf in France. "Wouldn't that be something," he marvels in his affecting Texas drawl, "to find Utopia on the Champs Elysées." You can tell this man is on a roll. Hardly a day goes by that Bownds doesn't get an offer to sell the company, or a few feelers or inquiries from investors. One promoter has even written hoping to turn Utopia into an upscale health spa.

Bownds says he doesn't worry much about Scoville anymore, although Utopia is still only about one-third the size of Artesia. He says he never wanted a feud in the first place, but once it started, he figured there was no way he could lose. Scoville had a good story to tell with his Artesia versus Perrier, but Bownds had a more powerful myth working in his favor. In Texas, there could be nothing so appealing as a country boy fighting to keep the family spread.

Down in San Antonio, Rick Scoville now understands the logic of all that. He sees more clearly his mistakes. It was bad enough that he had his white hat knocked off in public, that he allowed himself to get kicked around in the press. But he also knows that it could have been worse—much worse—if Bownds's suit had ever gone to trial.

Not that Scoville has any intention of letting Utopia walk away with the Texas water business. Like his competitor, he is charting a new course. After Bownds began new plant construction in Utopia, Scoville announced that he, too, would be building a new plant and introducing new flavors. And a new advertising campaign is in the works—something along the lines of "All waters are not created equal." The way Scoville figures it, his Artesia was the first local water, and that should count for something. And he's still the biggest, at least in Texas.

There is the impression, however, that Rick Scoville no longer has much zest for the battle. "It's getting to be a very dirty business, the water business," he complains. Scoville talks wistfully of selling out, as he had always planned. He's written to both Philip Morris Inc. and General Foods Corp., but so far there has been no interest.

For now, the streets of San Antonio are calm. But it would not take much to rekindle the feud between Rick Scoville and Ron Bownds. "If the agreement is broken, we'll go back to open warfare," promises Scoville, somewhat ominously. Bownds's reaction is customarily sly. "What else can you expect from someone from Connecticut?" he asks, smiling. In Texas, that's a question that demands a response. ☐

NOTE

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THE MAGAZINE FOR
GROWING COMPANIES

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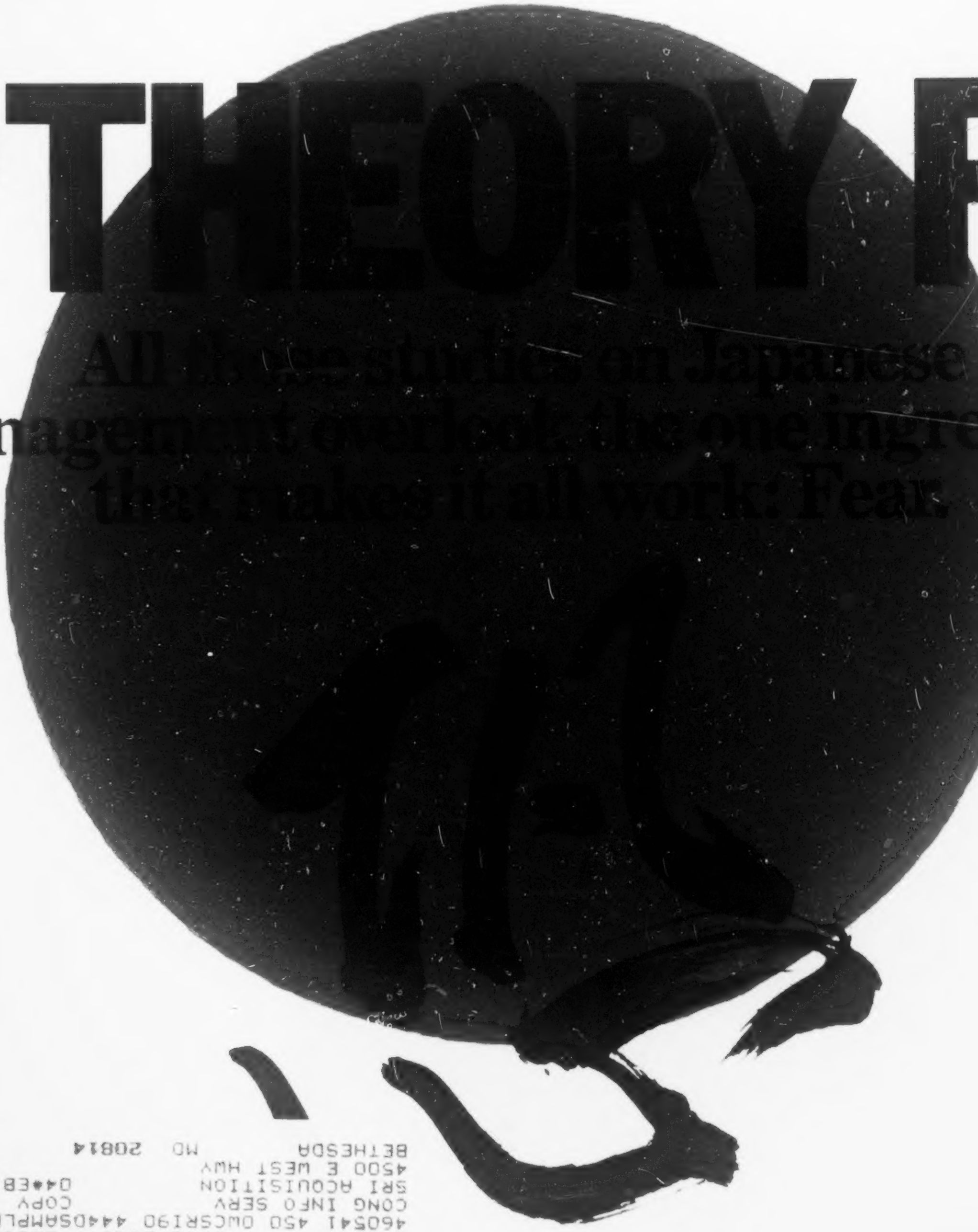
TIME OFF
Why Entrepreneurs Take
The Vacations They Do, See Page 64

"THEORY F"

All those studies on Japanese management overlook the one ingredient that makes it all work: Fear.



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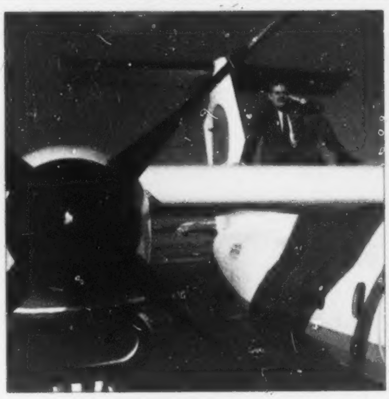

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Cover photo: Dana Sigall
Calligraphy: Miumi Gleason

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ary). More than just the automotive industry is moving toward Just-in-Time (JIT) environments, however. The electronics industry and other technology-oriented manufacturing concerns are turning toward this philosophy. Most large original equipment manufacturers are engaging in blanket purchasing agreements with vendors to secure economy-of-scale pricing, yet waiving costly storage and labor costs associated with volume purchasing.

The midsize company has more to gain using JIT because, generally, it has a heavy sales backlog but very little cash to implement the backlog. An inventory package would aid the midsize business and even the small business.

Daniel F. Balistierri
Marketing Director
Inventory Management Services
Manchester, Conn.

JUST PEEKING?

"Chain Gang" (Insider, February) caused me to wonder if the financial community has gotten over the "computer mystique."

When my company sought the support of the financial community, we heard, "If you are not 'high tech' we're not interested." It was unthinkable to suggest that the definition of high tech might be broader than computers. Are you suggesting that the financial community has gone back to *Webster's* or maybe to *Roget's* and expanded their scope? Is your article an indication that the financial community has opened its eyes?

Mark L. Schneider
President
HBA Polymers
Port Washington, N.Y.

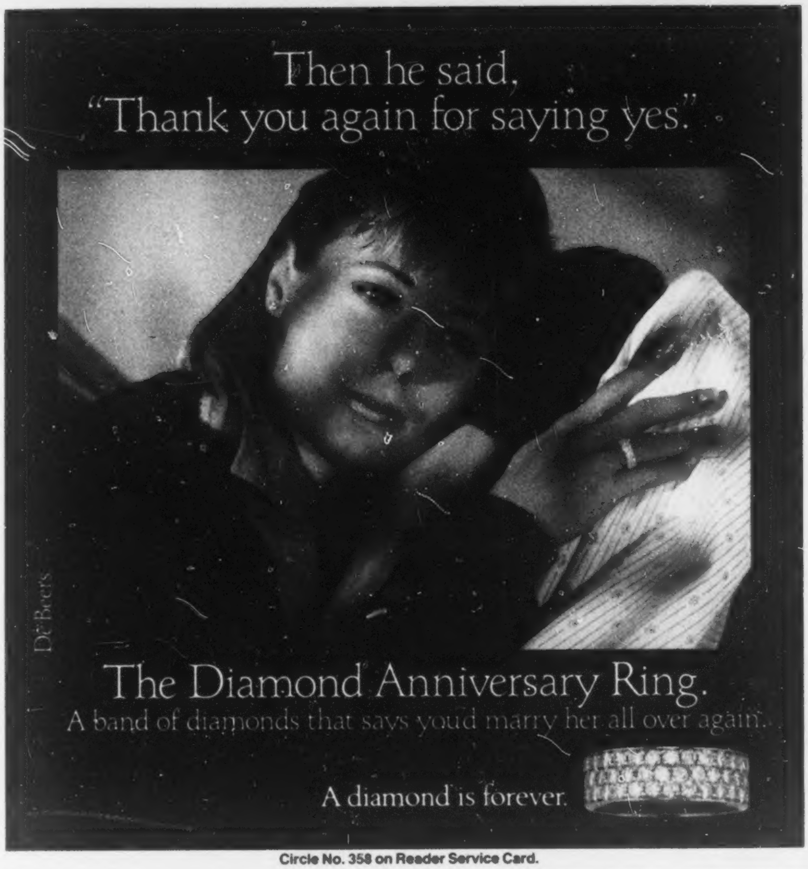
Corrections

In "Back to Basics" (February), the chart titled "The Changing Industry Mix: 1983 and 1985" should have been credited to Securities Data Co., New York City; the chart "The Best-Performing New Issues of 1985" should have been credited to CompuServe Inc., Columbus, Ohio, and the price for #23, Nuvision, should have read $13\frac{1}{4}$.

In the chart for "Investing in Growth Companies" (February), the O-T-C symbol for Patten should have read PATN.

In "Will the Company Please Come to Order" (March), the charts on page 83 should have been credited to Bruce Sanders.

INC. *wants to know what you think. Please address all correspondence to* INC. *Letters Editor, 38 Commercial Wharf, Boston, MA 02110. Please include name, address, and telephone number for verification. Letters must be signed, and may be edited for space and style.*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SEEDBEDS

Federal Labs May Open for Business

VENTURE CAPITALIST DAVID Silver just wanted to buy technology from Los Alamos National Scientific Laboratory, in New Mexico, a few years ago. But from the response he got, you'd think he was after secret computer codes at the Pentagon. "They said, 'We absolutely won't do it, we've never done it, and we can't do it,'" he recalls. Eighteen months and 11 contracts later, Silver owned the technology.

Courtesy of Los Alamos National Laboratory

Federal lab scientists are being urged to cooperate with small businesses.

A new bill could make federal laboratories much more receptive to such deals. The proposal, which the House of Representatives passed unanimously last December, urges the government's 380 labs to cooperate with private industry and give "special consideration" to small businesses. The labs, which spend about $18 billion in federal funds a year and employ nearly one-sixth of all U.S. researchers, cover such fields as health, agriculture, and defense. They could be a seedbed for innovative products and new companies.

Until now, though, most lab scientists have shown little interest in marketing their innovations—probably because they can't share in any profits. "Generally, if the labs develop research that doesn't apply directly to their mission, they just abandon it," says Rep. Stan Lundine (D-N.Y.), a sponsor. Few federal scientists even bother to get patents. The result: foreigners help themselves to the labs' ideas, which are regularly published. "The Soviets and the Japanese take best advantage of federal research," says Eugene Stark, industrial initiatives officer at Los Alamos.

To prevent this hemorrhaging, the bill gives lab scientists an incentive to think commercially. It sets up a system to reward their contribution. The scientists' exact take could be controversial when the Senate considers the bill; many companies resent having to match a government standard when they pay employees. But businesses are likely to be more interested in developing ideas that are patented—making them safe from competitors.

If the bill passes, more labs may resemble Oak Ridge National Laboratory, in Tennessee, where commercialization already is a priority. Last year, the lab spent about $250,000 polishing up eight new technologies for private industry. It also spawned four start-ups. —*Joshua Hyatt*

GREAT MOMENTS IN RECRUITING

PART 3

And the Father-in-Law Didn't Even Ask for Equity

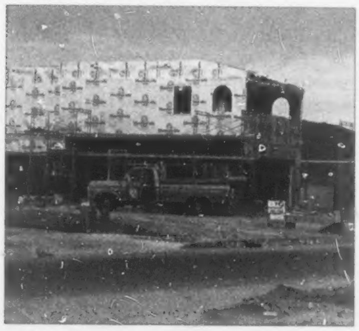
At 16, the Baltimore native got his first job developing a telegraph machine. He rose to factory superintendent 10 years later, enjoying the trappings of success by tooling around town in a Maxwell-Briscoe runabout. He worked with a design engineer, a former supersalesman who had been grinding out a living since age 13. The two began talking about product ideas they wanted to develop, such as a milk-bottle capper. But they had little money to start a company. S. Duncan Black reluctantly agreed to sell his prized car for $600, while Alonzo G. Decker wrung a loan from his father-in-law. Nine years later, in 1919, their investment was worth more than $1 million, largely due to one invention: the portable electric drill.

SCORECARD

By Virginia Inman

HOMES, SWEET HOMES

Aluminum-siding salespeople take note—the Promised Land may be in Albuquerque.



MIKE DONTJE

Albuquerque leads the nation in housing starts, a good sign for local businesses related to new houses.

That's where the number of housing starts is growing fastest, according to National Association of Home Builders estimates. While former boom towns, such as Dallas and Orlando, can expect to see 20% fewer houses built, Albuquerque's building rate is predicted to grow almost 130% in the 1984–89 period, compared with the preceding five years.

A rising number of housing starts usually indicates a strong local economy and foretells increasing prosperity for small businesses, especially those related to new houses. Already, sales of building materials in Albuquerque have risen from $99.7 million in 1982 to $157.4 million in 1984—a 58% jump. As even more houses are built, those receipts should increase further. Other small businesses, from exterminators to insurance offices, also benefit from a housing boom.

Metro Area	Annual Average 1985–89	Annual Average 1980–84	% change
Albuquerque	7,000	3,052	129.4%
Fresno, Calif.	4,000	2,360	69.5
San Diego, Calif.	25,000	15,339	63.0
Charleston, S.C.	8,000	5,047	58.5
El Paso	7,000	4,580	52.8
Bakersfield, Calif.	6,000	3,995	50.2
Somerset County, N.J.	1,700	1,148	48.1
Colorado Springs, Colo.	9,000	6,321	42.4
Memphis	6,000	4,302	39.5
Charlotte, N.C.	7,000	5,101	37.2

Listed are the top 10 of the 100 major U.S. metropolitan areas where housing starts are estimated to rise the fastest.

INSIDER (continued)

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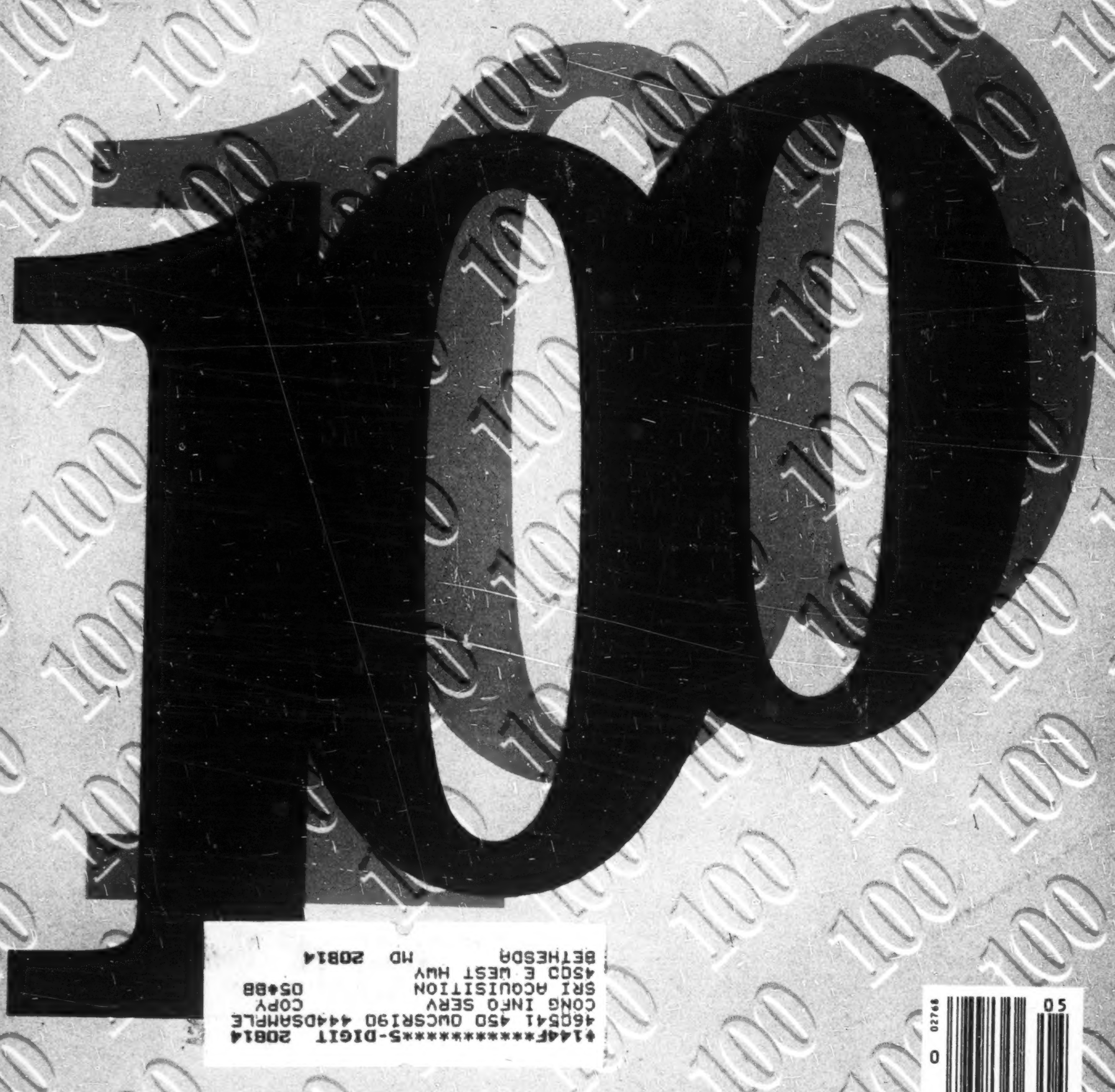

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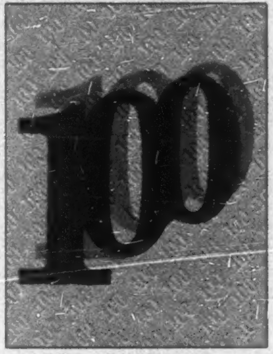

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Computer generated
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SPEAKING TERMS

Computers Get Together Bit By Byte

USER-FRIENDLY THOUGH THEY might be, many computers aren't speaking to one another. Their incompatibility has been wreaking havoc in many offices, but that situation may be about to change.

CURT DOTY

Thirty computer producers and users have joined to launch Corporation for Open Systems (COS), a nonprofit business that will try to accelerate the adoption of international standards, which will enable computers made by different companies to communicate with one another. A successful effort—not a sure thing at this point, but looking more realistic as such companies as IBM Corp. and General Motors Corp. join the ranks—would be a milestone for both manufacturers and users.

Users have long wanted the capability to connect various computers into networks for the exchange of data. GM, fed up with incompatibility problems, last year adopted a communications standard for new computers purchased for use in its factories. Customers are demanding the same for office computers. "This is a top-down initiative," says Norman Dawson, marketing vice-president at Control Data Corp. "It's coming about as a result of chief executive officers saying, 'We've got to get our act together.' "

Although COS is the offspring of big companies, its success could be good news for small, struggling computer firms. "Their biggest barrier has been users' fear of ending up stranded with products that won't work with what they've got, made by a company that isn't around anymore," says A. G. W. Biddle, president of The Computer & Communication Industry Association. "If a certificate can assure a customer that what he's buying will function as a component of a multivendor system, new opportunities for creative design and marketing will open up."

COS is selecting from among existing standards. It will create compliance tests and establish certification processes for computers and communications products and services. Small companies that adopt the standards will not have to sacrifice the ability to innovate with various features—a major competitive advantage. *—Nell Margolis*

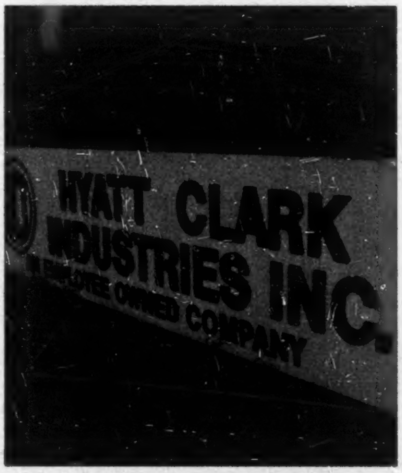
SCORECARD

By Joshua Hyatt

ARE ESOPS FEEBLE?

Hyatt-Clark Industries Inc. filed for Chapter 11 protection last January, but its misfortune didn't prove that employee equity is a bankrupt idea.

In 1981, the ball-bearings maker became America's largest employee-owned company. But the move didn't bring harmony. The 1,100 owner-employees bickered constantly with management and even staged a slowdown. "They had difficulty understanding that anytime you act in a negative way, you are acting against yourself," says Douglas Fraser, retired president of the United Auto Workers and a company director.



KEITH GLASGOW

Despite this prominent casualty, the number of employee stock ownership plans will increase more rapidly in the years ahead. Joseph Blasi, a lecturer in social studies at Harvard University, estimates that more than 10% of workers will toil in companies that are at least 15% employee-owned within 50 years—a level of ownership that may give them real influence. Most existing ESOPs cover ownership of far less than 15%.

The majority of ESOPs with more than 15% ownership occur in small companies in which owners have no successors and want to leave the business in trusted hands. Business owners are also attracted by the tax advantages of selling to employees; the number of ESOPs soared after tax breaks were passed in 1984.

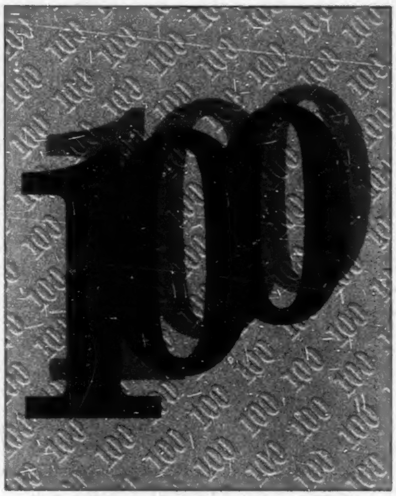
The plans are common in deregulated industries like trucking and airlines, where competitive pressures force labor to accept concessions in return for equity. Blasi predicts that the next wave of ESOPs will be in banking. And the United Steelworkers of America will be asking for more equity as it hammers out new contracts this year.

Here are the figures behind the growth of employee stock ownership plans since 1980, as estimated by the National Center for Employee Ownership.

Year	Number of ESOPs	Employees in ESOPs (in millions)
1980	5,100	7.0
1981	5,500	7.4
1982	5,900	7.7
1983	6,300	8.6
1984	6,800	10.2
1985	8,000	11.5

INTRODUCING THE 1986 INC. 100

INC. 100:	
Number of companies by sector	
Manufacturing	55
Service	26
Mining (including oil and gas)	6
Wholesale and distribution	6
Retail	7
Total sales 1985 (million)	$6,044
Change 1981–85	2,773%
Total net income 1985 (million)	$79.2
Total net income 1981 (million)	($32.8)
Median sales 1985 (million)	$21.40
Median sales 1981 (million)	$0.65



INC. 100:	
Compound annual sales growth rate (1981–85)	
Total sales	131.52%
Range	81.47%–411.94%
Net income as a % of sales (1985)	
Range	loss to 0.02%–24.12%
Median	3.47%
No. acquiring other companies (1981–85)	49
No. founded since 1976	84
Median number of employees	
1985	207
1981	25
Change 1981–85	600.81%

Like a bunch of adolescents, the companies on the INC. 100 are an unsettled lot. They have grown so fast that their knees ache. They have consumed capital voraciously, but most haven't yet produced much income. They have come a long way—but their future is as much in doubt as ever.

An exaggeration? No. The typical company on this year's list of the 100 fastest-growing small public companies in America is less than 10 years old. Since 1980, its revenues have grown 2,773%, and it has added an average of nine new employees every *month*. Last year alone, the 10 companies that went public raised approximately $100 million. But nearly a third of the companies on the list are still losing money.

As to the future—well, this year marks INC.'s eighth listing of the 100, and what happens to the list's alumni is by now pretty well established. Some few companies continue their hectic growth and, like Apple Computer Inc. (1982, #1; 1983, #5), take their place on the rosters of the nation's largest enterprises. Many more slow down, and grow into midsize middle age. Still others are grist for the mergers-and-acquisitions mill, or fade away into the nether reaches of bankruptcy court. Like a senior class the day after graduation, companies on an INC. 100 list are filled with possibilities. But only a few are candidates for Most Likely to Succeed.

Whatever the future holds for these companies, though, the past and present of this year's INC. 100 reveal much about the wellsprings of growth—and about how growing companies can and should do business.

Think back, for example, to the turn of

INC. 100 EDITED BY STEPHEN D. SOLOMON

the decade, when many of the companies on the list were founded. Jimmy Carter was using the word "malaise" to describe the nation's state of mind right about then, and few were disagreeing. But some entrepreneurs saw beyond double-digit inflation and record interest rates to spot opportunities in fast-changing segments of the economy. "Aah, Those Were the Days" (page 69), by senior writer Joseph P. Kahn and senior editor Stephen D. Solomon, looks back and—with the indisputable advantage of hindsight—shows why those opportunities turned out to be pockets of hypergrowth. Maybe those who learn this history well enough will get the chance to repeat it.

To be sure, spotting an opportunity is one thing; making money on it is another. And while every one of the 100 companies on this year's list identified and took advantage of an opportunity, nearly a third of them lost money last year. Does fast growth necessarily mean lean—or negative—income? Is the trade-off between market share and profitability inevitable? Senior writer Tom Richman, in "Seeing Red" (page 77), picks apart the income statements of a selection of companies to show why so many rapidly growing enterprises lose money—and why, in some cases, losing money isn't such a bad thing in a company's early years.

To an investor, of course, losing money is *always* bad, and there's no surer way to do so than to invest carelessly in fast-growing companies. Between March 1985 and this past March, for example, the Dow Jones Industrial Average rose 31%, yet 53 of this year's 100 companies watched their stocks decline over the same period. So the trick is to separate the stars from the dogs. In "Look Before You Weep" (page 83), senior writer Robert A. Mamis offers some tips to investors in growth companies, and shows how the nation's most successful growth-stock pickers go about their business.

Behind the unusual numbers of an INC. 100 company are some equally unusual characters. Dr. Robert Jarvik, for example, the famous inventor of the Jarvik-7 artificial heart, whose company posted revenue of $5.7 million last year despite a product that has been called unreliable, unethical, and downright dangerous. Or Irwin Selinger, who is the first chief executive officer to found and lead two different companies on the list. Or Ben Cohen, who plays Ping-Pong at board meetings and takes home a salary of only $50,000. You'll meet many such personalities in "The INC. 100 Portfolio" (page 51).

Finally, in "Line Items," (page 62) we break out a number of bite-size facts, trivial and otherwise. How many founders are still running INC. 100 companies? Which company provides the most unusual benefit? Which CEO used to be a piano distributor in North Dakota?

Study hard. There will be a test on Thursday.—*Virginia Inman*

HOW THE INC. 100 ARE SELECTED

The 1986 INC. 100 is the eighth annual ranking of the 100 fastest-growing publicly held smaller companies in the United States. Companies are ranked by the percentage increase in net sales (or total revenues) over a five-year period—in this case, 1981 to 1985.

■ To be considered for the INC. 100, each company must meet the following criteria:

1. The company is an independent corporation. Banks and utilities are excluded.
2. The company was publicly held as of December 31, 1985.
3. The company shows an operating/sales history of at least five years.
4. The company's 1985 sales exceeded its 1984 sales. Companies showing growth over the five-year period but a decline in 1985 sales are disqualified.
5. The company's 1981 sales were at least $100,000 but no more than $25 million.

■ The INC. 100 research staff used company prospectuses, 10-Ks, annual reports, and various directories to maintain the in-house database of publicly held smaller companies. INC. narrowed the list by applying the five criteria listed above, and by using a five-year growth cutoff of 600%. INC. then conducted telephone interviews with executives of each qualifying company to verify the figures.

■ An editorial research team led by special projects editor Sara Baer-Sinnott selected the 1986 INC. 100. The research was conducted by Sarah Clifford, Andrew J. F. Hamilton, and Rachel Leahey. They were assisted by research assistant Deborah L. Merritt, administrative assistant Ruth Keren, and interns Bonnie Barber, Beatrice Bast, Lisa Lee Freeman, and Lisa Poller. The published material is the only information INC. will make available.

INC. 100 INDEX

Company (rank)

ALC Communications (3)
Action Packets (86)
Alexander Energy (34)
Allegheny & Western Energy (19)
Alta Energy (85)
American Businessphones (6)
American Healthcare Mgmt. (69)
American Surgery Centers (29)
Amgen (58)
Animed (80)
Apollo Computer (14)
Applied Circuit Technology (94)
Archive (26)
Artel Communications (42)
Ashton-Tate (4)
Avant-Garde Computing (81)
Ben & Jerry's Homemade (74)
Biomet (71)
Brentwood Instruments (40)
Buffton (33)
C. P. Rehab (75)
Cade Industries (18)
Caremark (76)
Centocor (38)
Certified Collateral (31)
Ciprico (55)
Circadian (59)
Comp-U-Card Int'l (48)
Compression Labs (62)
Computer Telephone (53)
ComputerCraft (60)
Consolidated Stores (84)
Consul Restaurant (87)

Company (rank)

Convergent Technologies (39)
DEST (67)
Datacopy (77)
Durakon Industries (78)
Electronic Tele-Comm. (36)
Endevco (16)
Energy Oil (8)
Enzo Biochem (100)
Equatorial Communications (10)
Expeditors Int'l of Washington (7)
FONAR (82)
Fibronics International (28)
First Centennial (45)
Forum Group (1)
Fuddruckers (25)
G. D. Ritzy's (54)
Harvard Industries (72)
HealthAmerica (20)
Helm Resources (65)
High Plains (61)
IDEA (96)
Insituform of North America (89)
Integrated Genetics (21)
Interand (92)
Iomega (5)
Jack Henry & Associates (97)
Jacor Communications (73)
Jet America Airlines (24)
King World Productions (64)
LyphoMed (52)
MBI Business Centers (70)
Manufactured Homes (99)
Medical Care Int'l (63)
Medical Electronics (23)

Company (rank)

New York Film Works (47)
ORS Automation (35)
1 Potato 2 (12)
Patient Technology (41)
Personal Diagnostics (57)
Piezo Electric Products (2)
Plains Resources (88)
Priam (68)
Reid-Ashman (98)
SIS (50)
Saratoga Standardbreds (32)
Shanley Oil (11)
Simmons Airlines (46)
Solar Age Industries (27)
StarTel (83)
Sterling Software (30)
Symbion (43)
Telco Systems (51)
Telebyte Technology (90)
Tender Loving Care (93)
Thermal Profiles (79)
3Com (13)
Time Energy Systems (37)
U. S. Intec (15)
Ungermann-Bass (66)
United HealthCare (49)
V Band Systems (22)
VLSI Technology (9)
Vitronics (44)
Walker Telecommunications (17)
Western-World Television (56)
The Yankee Cos. (95)
Ziyad (91)

1.		**FORUM GROUP** (Indianapolis, IN)	68,585%	412%	$177,207	$258	$33,893	$1,305
2.		**PIEZO ELECTRIC PRODS.** (Cambridge, MA)	30,965	320	76,420[i]	246	(22,200)	(1,800)
3.		**ALC COMMUNICATIONS** (Chicago, IL)	24,327	295	467,293	1,913	(27,125)	(1,312)
4.		**ASHTON-TATE** (Culver City, CA)	17,595	265	82,281	465	7,463	40
5.		**IOMEGA** (South Roy, UT)	17,415	264	116,474	665	14,894	(3,779)
6.		**AMERICAN BUSINESSPHONES** (Irvine, CA)	16,080	257	18,283	113	678	12
7.	2	**EXPEDITORS INT'L OF WASHINGTON** (Seattle, WA)	14,980	250	66,049	438	2,865	19
8.		**ENERGY OIL** (Longmont, CO)	14,529	248	15,068	103	2,975	(310)
9.		**VLSI TECHNOLOGY** (San Jose, CA)	14,126	245	78,671	553	16	(1,478)
10.		**EQUATORIAL COMM.** (Mountain View, CA)	10,311	219	56,115	539	1,087	(2,302)
11.		**SHANLEY OIL** (Dallas, TX)	10,056	217	26,000[c]	256	115[c]	(1,376)
12.	11	**1 POTATO 2** (New Hope, MN)	10,055	217	15,436	152	(6,043)	3
13.	22	**3COM** (Mountain View, CA)	9,050	209	46,300	506	5,033	(124)
14.		**APOLLO COMPUTER** (Chelmsford, MA)	8,593	205	295,575	3,400	(1,516)	(2,992)
15.		**U.S. INTEC** (Port Arthur, TX)	8,475	204	47,506	554	3,844	(320)
16.	9	**ENDEVCO** (Dallas, TX)	6,984	190	155,287	2,192	3,681	336
17.	13	**WALKER TELECOMMUNICATIONS** (Plainview, NY)	6,867	189	33,718[c]	484	192[9]	186
18.		**CADE INDUSTRIES** (Marinette, WI)	6,426	184	32,500[c]	498	1,425[9]	61
19.		**ALLEGHENY & WESTERN ENERGY** (Charleston, WV)	6,398	184	270,458	4,162	12,491	1,078
20.		**HEALTHAMERICA** (Nashville, TN)	6,092	181	462,846	7,475	11,468	(1,677)
21.		**INTEGRATED GENETICS** (Framingham, MA)	5,684	176	7,288	126	(3,736)	(527)
22.		**V BAND SYSTEMS** (Yonkers, NY)	5,648	175	18,394	320	2,350	(391)
23.		**MEDICAL ELECTRONICS** (Boulder, CO)	5,608	175	6,850[c]	120	700	(77)
24.		**JET AMERICA AIRLINES** (Long Beach, CA)	5,112	169	102,000	1,957	(8,100)	(3,243)
25.	15	**FUDDRUCKERS** (San Antonio, TX)	4,909	166	53,000[c]	1,058	572[9]	59
26.		**ARCHIVE** (Costa Mesa, CA)	4,773	164	57,845	1,187	1,034	(842)
27.		**SOLAR AGE INDUSTRIES** (Albuquerque, NM)	4,658	163	15,320	322	549	23
28.	40	**FIBRONICS INTERNATIONAL** (Hyannis, MA)	4,512	161	25,460	552	2,085	(197)
29.		**AMERICAN SURGERY CENTERS** (Scottsdale, AZ)	4,454	160	4,600[c]	101	(522)[c]	(103)
30.		**STERLING SOFTWARE** (Dallas, TX)	4,241	157	60,550	1,395	2,923	234
31.		**CERTIFIED COLLATERAL** (Chicago, IL)	4,175	156	7,268	170	1,753	(701)
32.		**SARATOGA STANDARDBREDS** (N. Salem, NY)	4,051	154	4,732	114	246	(38)
33.	3	**BUFFTON** (Fort Worth, TX)	3,965	153	48,216	1,186	893	184
34.		**ALEXANDER ENERGY** (Oklahoma City, OK)	3,224	140	8,576	258	476	149
35.		**ORS AUTOMATION** (Princeton, NJ)	3,153	139	4,750[c]	146	(2,164)[9]	(839)
36.		**ELECTRONIC TELE-COMM.** (Waukesha, WI)	3,139	139	4,696	145	920	(77)
37.		**TIME ENERGY SYSTEMS** (Houston, TX)	2,972	135	14,100[c]	459	1,389	191
38.		**CENTOCOR** (Malvern, PA)	2,941	135	22,355	735	3,462	(898)
39.	1	**CONVERGENT TECHNOLOGIES** (San Jose, CA)	2,915	134	395,167	13,105	11,513	777
40.		**BRENTWOOD INSTRUMENTS** (Torrance, CA)	2,882	134	6,083	204	463	(1)
41.		**PATIENT TECHNOLOGY** (Hauppauge, NY)	2,834	133	24,789[c]	845	(8,043)[9]	(164)
42.		**ARTEL COMMUNICATIONS** (Worcester, MA)	2,791	132	6,013	208	385	22
43.		**SYMBION** (Salt Lake City, UT)	2,766	131	5,704	199	(2,943)	10
44.		**VITRONICS** (Newmarket, NH)	2,752	131	3,707	130	54	(48)
45.		**FIRST CENTENNIAL** (Fort Collins, CO)	2,750	131	3,705	130	(773)	(58)
46.	18	**SIMMONS AIRLINES** (Chicago, IL)	2,730	131	48,673	1,720	1,950	(399)
47.		**NEW YORK FILM WORKS** (New York, NY)	2,674	130	5,410	195	(796)	(213)
48.		**COMP-U-CARD INTERNATIONAL** (Stamford, CT)	2,598	128	28,679	1,063	3,140	(1,912)
49.		**UNITED HEALTHCARE** (Minnetonka, MN)	2,595	128	110,222	4,090	2,835	181
50.		**SIS** (Westlake, OH)	2,548	127	13,478	509	4	(21)

NA: 12-month figure not available at press time; NM: negative return on equity; i: INC. estimate; c: company estimate; 9: nine-month figure

$98,683	47.15%	5,159	1,097	6	1967	1981	Y	6%	Health-care svcs.
16,816[g]	NM	500	150	3	1980	1983	Y	6	Sale & application of electronic tech.
13,428	NM	2,290	155	0	1980	1985	N	1	Long-distance telephone svc.
29,950	33.52	459	4	2	1980	1983	N	3	Designs/mfrs. microcomp. software prods.
50,795	72.53	1,154	105	0	1980	1983	N	1	Mfrs. disk drives
5,608	67.58	236	1	1	1980	1984	Y	34	Distrs./svcs. business phones
11,076	35.50	275	90	2	1979	1984	Y	22	Int'l air-freight forwarding
7,679	63.11	45	6	3	1978	1983	Y	29	Oil & gas explor.
98,477	0.02	820	40	0	1979	1983	N	5	Mfrs. integrated circuits
102,177	2.13	672	25	1	1979	1983	Y	4	Mfrs. micro earth stations
9,571[g]	1.20	435	100	10	1980	1983	Y	65	Oil & gas devel., food marts
1,803	NM	70	30	0	1977	1983	N	0	Quick-service restaurant
24,702	25.67	274	22	0	1979	1984	N	6	Mfrs. LAN systs.
174,000	NM	3,200	200	0	1980	1983	N	1	Mfrs. computer systs.
17,347	63.41	185	9	0	1980	1985	Y	29	Mfrs. single-ply roofing materials
16,118[c]	29.41	82	35	3	1977	1983	Y	17	Oil & gas explor./devel.
12,208[g]	1.73	100	3	1	1978	1983	Y	14	Distrs. electronic key telephone systs.
13,475[g]	34.14	975	15	3	1980	1984	Y	32	Mfrs. aerospace component parts
33,440	61.68	518	30	1	1981	1981	Y	3	Natural gas explor. & devel.
94,858	15.07	4,000	150	12	1980	1983	Y	14	National HMO
16,069	NM	138	16	0	1981	1983	N	4	Devels. diagnostic & therapeutic prods.
10,321	36.18	130	25	2	1977	1984	Y	31	Mfrs. telecommunications terminal equip.
1,965[g]	93.69	29	3	1	1981	1982	Y	4	Mfrs./sells microwave hypothermia equip.
6,700	NM	750	200	0	1980	1981	Y	2	Airline
16,454	3.98	3,000	100	0	1979	1983	N	4	Restaurant operator & franchisor
31,601	3.39	607	74	0	1980	1983	Y	4	Mfrs. cartridge tape drives
1,050	108.25	78	25	0	1979	1985	Y	26	Mfrs. solar-heating prods.
21,263	24.84	425	40	0	1977	1983	Y	10	Mfrs. fiber-optic communications systs.
3,200[c]	NM	94	6	3	1976	1980	N	3	Ambulatory surgery centers
36,621	11.16	2,950	50	8	1981	1983	Y	10	Mfrs. computer software prods. & svcs.
14,354	46.41	208	18	0	1980	1983	Y	4	Mgmt. info. svcs. to auto insurance cos.
4,859	5.33	60	30	1	1981	1984	Y	10	Standardbred & harness horses
13,789	6.99	700	25	3	1980	1981	N	4	Mfrs. plastic prods., electr. cables
14,765	3.72	41	40	2	1980	1981	Y	24	Oil & gas explor. & devel.
317[g]	NM	100	18	0	1968	1981	N	1	Mfrs. CAD/CAM
4,026	86.44	54	5	0	1980	1985	Y	9	Mfrs. voice announcement systs.
46,040[g]	5.52	90	20	0	1978	1983	Y	17	Designs/installs energy-saving systs.
49,355	14.74	160	30	0	1979	1982	Y	9	Mfrs. diagnostic tests
228,000	5.40	1,994	150	0	1979	1982	N	2	Mfrs. computers & computing systs.
495	1,438.65	54	2	0	1977	1985	Y	46	Mkts./sells medical prods.
12,636[g]	NM	280	5	7	1981	1983	Y	7	Mfrs. health-care prods.
8,392[g]	4.89	80	9	0	1981	1983	Y	20	Mfrs. fiber-optic transmission systs.
16,681[g]	NM	65	5	0	1976	1983	Y	10	Mfrs. artificial organs
1,803	3.23	46	10	0	1981	1984	Y	22	Mfrs. infrared solder reflow systems
4,117	NM	28	4	1	1979	1982	Y	18	Life insurance
25,462	19.31	1,057	250	0	1974	1984	N	26	Regional airline
1,553	NM	135	30	2	1980	1984	Y	5	High-quality film processing
14,721	27.23	293	48	0	1973	1983	Y	2	Electronic shopping svc.
15,000	75.36	1,437	150	1	1974	1984	Y	31	HMO
3,862	0.10	650	100	0	1981	1983	Y	35	Country-style restaurants

1:Return on equity is calculated by dividing 1985 net income by 1984 year-end shareholder's equity.

51.	89	**TELCO SYSTEMS** (Menlo Park, CA)	2,457%	125%	$93,054	$3,639	($2,804)	($592)
52.		**LYPHOMED** (Chicago, IL)	2,440	124	68,000[c]	2,677	4,511[9]	167
53.		**COMPUTER TELEPHONE** (Wellesley Hills, MA)	2,383	123	7,100	286	251	(141)
54.	12	**G. D. RITZY'S** (Columbus, OH)	2,331	122	14,417[c]	593	(4,101)	(376)
55.		**CIPRICO** (Plymouth, MN)	2,310	122	8,171	339	821	(140)
56.		**WESTERN-WORLD TELEVISION** (Los Angeles, CA)	2,303	121	14,202	591	(102)[9]	(79)
57.		**PERSONAL DIAGNOSTICS** (Whippany, NJ)	2,207	119	9,229	400	(761)	(291)
58.		**AMGEN** (Thousand Oaks, CA)	2,046	115	10,130	472	(7,763)	(44)
59.		**CIRCADIAN** (San Jose, CA)	2,014	114	13,003	615	1,107	(884)
60.	8	**COMPUTERCRAFT** (Houston, TX)	2,013	114	137,237	6,496	(2,940)	20
61.		**HIGH PLAINS** (Wichita, KS)	1,956	113	9,212	448	(3,775)	129
62.		**COMPRESSION LABS** (San Jose, CA)	1,843	110	15,372	791	1,048	(4,841)
63.		**MEDICAL CARE INT'L** (Dallas, TX)	1,841	110	35,000[c]	1,803	(7,001)[9]	(211)
64.		**KING WORLD PRODUCTIONS** (Summit, NJ)	1,813	109	81,280	4,248	9,842	834
65.	43	**HELM RESOURCES** (New York, NY)	1,806	109	95,000[c]	4,985	(460)[9]	621
66.	7	**UNGERMANN-BASS** (Santa Clara, CA)	1,778	108	72,166	3,842	3,723	(321)
67.		**DEST** (Milpitas, CA)	1,669	105	18,556	1,049	2,616	(1,490)
68.		**PRIAM** (San Jose, CA)	1,651	105	105,025	5,997	(20,930)	(3,747)
69.	58	**AMERICAN HEALTHCARE MGMT.** (Dallas, TX)	1,574	102	410,000[c]	24,486	7,800[c]	1,228
70.		**MBI BUSINESS CENTERS** (Rockville, MD)	1,548	101	50,523	3,065	1,977	(15)
71.		**BIOMET** (Warsaw, IN)	1,537	101	33,082	2,021	3,468	213
72.		**HARVARD INDUSTRIES** (St. Louis, MO)	1,519	101	205,868	12,712	7,885	720
73.		**JACOR COMMUNICATIONS** (Cincinnati, OH)	1,508	100	14,423	897	100	(416)
74.		**BEN & JERRY'S HOMEMADE** (Waterbury, VT)	1,445	98	9,500[c]	615	520[9]	29
75.	49	**C. P. REHAB** (New York, NY)	1,370	96	26,560	1,807	2,203	526
76.	25	**CAREMARK** (Newport Beach, CA)	1,339	95	74,032	5,144	7,416	172
77.		**DATACOPY** (Mountain View, CA)	1,309	94	5,200	369	(1,734)	(902)
78.	39	**DURAKON INDUSTRIES** (Lapeer, MI)	1,282	93	49,679	3,595	3,848	180
79.		**THERMAL PROFILES** (Plainview, NY)	1,279	93	14,075	1,021	1,219	48
80.		**ANMED** (Roslyn, NY)	1,257	92	8,917	657	104	(293)
81.	52	**AVANT-GARDE COMPUTING** (Mt. Laurel, NJ)	1,224	91	20,437	1,544	875	(676)
82.		**FONAR** (Melville, NY)	1,221	91	8,455	640	(8,909)	(1,119)
83.	44	**STARTEL** (Irvine, CA)	1,202	90	10,823[c]	831	(149)[9]	(483)
84.		**CONSOLIDATED STORES** (Columbus, OH)	1,196	90	129,045	9,958	8,641	1,392
85.		**ALTA ENERGY** (Midland, TX)	1,193	90	2,341	181	(143)	79
86.	68	**ACTION PACKETS** (Ocala, FL)	1,184	89	2,824	220	79	33
87.	19	**CONSUL RESTAURANT** (Minneapolis, MN)	1,180	89	86,972	6,797	(15,152)	(118)
88.	53	**PLAINS RESOURCES** (Oklahoma City, OK)	1,160	88	10,836	860	890	(242)
89.		**INSITUFORM OF NORTH AMERICA** (Memphis, TN)	1,112	87	8,287[c]	684	877[9]	(567)
90.		**TELEBYTE TECHNOLOGY** (Greenlawn, NY)	1,108	86	3,200[c]	265	(145)[c]	(68)
91.	21	**ZIYAD** (Denville, NJ)	1,105	86	28,595	2,373	2,791	188
92.		**INTERAND** (Chicago, IL)	1,096	86	6,926[c]	579	(1,214)[9]	(195)
93.	78	**TENDER LOVING CARE** (Lake Success, NY)	1,077	85	16,542	1,405	26	14
94.		**APPLIED CIRCUIT TECHNOLOGY** (Anaheim, CA)	1,053	84	18,520	1,606	(401)	153
95.	93	**THE YANKEE COS.** (Cohasset, MA)	1,036	84	213,078	18,754	3,446	1,923
96.	47	**IDEA** (Torrance, CA)	1,002	82	5,431	493	489	(13)
97.		**JACK HENRY & ASSOCIATES** (Monett, MO)	996	82	12,452	1,136	1,171	102
98.	35	**REID-ASHMAN** (Santa Clara, CA)	990	82	7,457	684	254	122
99.		**MANUFACTURED HOMES** (Winston-Salem, NC)	987	82	80,000[c]	7,359	3,593[9]	173
100.	41	**ENZO BIOCHEM** (New York, NY)	985	81	6,800	627	1,300	(209)

NA: 12-month figure not available at press time; NM: negative return on equity; i: INC. estimate; c: company estimate; 9: nine-month figure

$56,220	NM	855	375	2	1972	1984	Y	2%	Mfrs. digital & analog transmiss. equip.
75,996[9]	21.09	775	65	2	1981	1983	Y	22	Mfrs. injectable drugs
672,980	48.82	122	13	0	1980	1985	Y	11	Telephone communications systs.
3,627[9]	NM	131	10	0	1979	1982	Y	33	Quick-service restaurant
9,753	9.22	76	10	0	1978	1983	Y	14	Mfrs. disk controllers
1,070[9]	NM	41	7	2	1981	1983	Y	22	Distrs. television programs
5,238	NM	115	23	1	1980	1981	Y	5	Mfrs. medical devices
37,705	NM	200	40	0	1980	1983	N	4	Devels. health & specialty chemical prods.
9,275	30.58	122	18	0	1979	1985	N	0	Mfrs. diagnostic medical instruments
6,731	NM	640	19	5	1977	1983	Y	46	Retailer of microcomputer systs.
(1,308)	NM	7	7	0	1980	1981	N	8	Production/sale of ethanol
16,643	6.77	110	60	0	1976	1984	N	4	Mfrs. video compression equipment
48,192[9]	NM	600	175	25	1981	1983	Y	2	Outpatient surgical centers
23,299	186.83	71	10	1	1964	1984	N	12	Distrs. & syndicator of TV programs
(4,438)[9]	NM	214	307	4	1954	1980	Y	6	Energy svcs., agric. industries
64,029	6.87	100	20	0	1979	1983	Y	9	Mfrs. LAN
9,315	41.46	206	41	0	1970	1985	N	5	Mfrs. electronic document readers
77,587	NM	898	100	0	1978	1981	Y	1	Mfrs. disk drives
85,000[9]	10.19	6,700	900	1	1978	1984	Y	30	Health-care svcs.
11,735	39.63	390	23	1	1974	1984	N	9	Sells microcomputer systs. & prods.
20,406	19.71	489	55	1	1977	1982	Y	9	Mfrs. surgical implants
35,111	57.13	3,700	1,500	NA	1898	1932	N	45	Mfrs. engineered prods.
3,600	3.16	300	35	8	1979	1982	Y	26	Operates radio stations
1,646[9]	48.69	80	15	0	1978	1985	Y	34	Ice cream
50,928	4.54	203	70	1	1972	1980	Y	3	Health-care mgmt.
69,052	12.84	445	69	4	1979	1982	Y	4	Health care
5,766	NM	80	23	0	1973	1983	N	4	Mfrs. electronic digitizing cameras
13,220	41.12	575	80	3	1979	1984	Y	65	Mfrs. truck bed liners
10,222	13.70	400	50	2	1979	1981	Y	8	Mfrs. window & door polyvinyl profiles
17,917	2.81	350	25	7	1979	1984	Y	4	Veterinary clinical svcs. & prods.
20,039	4.98	197	20	1	1978	1983	Y	8	Mfrs. integrated software–based systs.
(4,344)	NM	193	6	0	1978	1981	Y	38	Mfrs. medical scanning equip.
5,536[9]	NM	90	20	0	1980	1983	Y	19	Microprocessor-controlled telecomm.
40,683	53.03	1,700	190	0	1967	1985	Y	20	"Close-out" merchandise retail store
1,675	NM	19	5	0	1981	1981	Y	36	Oil & gas explor. & devel.
1,327	11.47	35	5	0	1978	1984	Y	61	Distrs. gift-shop items
11,886	NM	1,800	137	3	1978	1980	N	3	Operates Mexican restaurants
14,634	11.11	75	27	1	1976	1981	N	8	Oil & gas explor. & production
8,768[9]	19.96	75	4	0	1980	1981	N	2	Mfrs. lining of pipelines, sewers
2,734[9]	NM	60	5	0	1979	1983	Y	13	Mfrs. computer peripherals & data comm.
28,006	11.12	300	100	0	1979	1983	Y	7	Mfrs. automatic envelope feeder
5,832	NM	92	12	0	1969	1983	Y	24	Mfrs. teleconferencing systs.
2,787	0.99	1,400	500	5	1978	1983	Y	13	Home health-care svcs.
12,707	NM	237	1	2	1976	1983	Y	39	Mfrs. test systs. for hard disk drives
28,737	11.91	700	100	2	1977	1980	Y	23	Energy operations & financial svcs.
3,385	16.89	49	7	0	1979	1983	Y	29	Mfrs. integrated circuit test equip.
1,740	131.01	42	13	0	1977	1985	Y	41	Integrates bank software/hardware
5,824	7.02	81	3	2	1980	1984	N	19	Mfrs. integrated circuit test equip.
11,329[9]	47.07	593	63	3	1975	1983	Y	59	Manufactured homes retailer
23,038	6.74	104	17	1	1976	1980	Y	12	Devels. prods. using genetic engineering

1:Return on equity is calculated by dividing 1985 net income by 1984 year-end shareholder's equity.

THE INC. 100 PORTFOLIO

KING OF HEARTS

Has Jarvik Found A Heart of Gold?

Dr. Robert Jarvik hardly seems to be writing a prescription for fast growth. His company's first product has been called dangerous, unreliable, and unethical. The chief executive officer of Symbion Inc. (#43) is spending much of his time trying to persuade "key opinion leaders" in Congress that artificial hearts should be implanted in humans.

Bad publicity? "People just don't understand that what we're doing is marketplace preparation," says Jarvik, the 39-year-old developer of the Jarvik-7 artificial heart. Despite the clamor, the heart is getting increasing use, at least as a temporary device to keep patients alive until human-heart transplants can be arranged. And more surgical teams are visiting Symbion's Salt Lake City complex to learn the procedure. Each group's training and equipment adds up to $350,000 for Symbion.

STEVE NORTALIP/*TIME MAGAZINE*

DR. ROBERT JARVIK'S Symbion Inc. now supplies not only the Jarvik-7 artificial heart, but also other, less controversial products.

Despite a loss of about $2.9 million in 1985, Symbion could do better this year with the introduction of two new products: an artificial ear and a ventricular assist device (VAD). The VAD is a temporary support that gives the natural heart time to recover after surgery. "Both will have better margins than the heart," notes Mariola Haggar, an analyst at L. F. Rothschild, Unterberg, Towbin Inc. "The company should make a nominal profit by 1987."

In 1983, Jarvik broke with Dr. Willem Kolff, his mentor and Symbion's cofounder, because "I felt that we needed to push much faster and more directly toward the growth of sales and profits." He calls his strategy the "full-service-bank approach." The VAD gives customers more options in cardiac care. The Jarvik-7 and the VAD use the same Symbion power source, which costs about $48,000.

Jarvik, a tinkerer whose "lousy grades" meant he had to start medical school in Italy, relies on consultants and directors for advice on running the company. "One of Dr. Jarvik's strong suits is that he listens," says Robert Reeves, who recently resigned after serving on Symbion's board for six years. "I always thought we could bring in businessmen to shore him up if he needed business depth." They haven't had to, but Jarvik is still a technician at heart. He recently bought back the rights to a surgical stapler he invented when he was 17. "It has never been produced," he says, "so maybe I'll do it myself."

—Joshua Hyatt

ROCKET MAN

Cade: Coping With An Untimely Death

John Cade's briefcase was all that survived when his twin-engine Cessna crashed just after takeoff last January. The briefcase landed in the parking lot of an apartment complex in Troy, Mich.

COURTESY OF *THE DETROIT NEWS*

JOHN CADE'S DEATH caused anxiety within Cade Industries and without. But the firm has continued with Cade's plans for success.

Among the charred notes found inside was a list of Cade's objectives for Cade Industries Inc. (#18), of Marinette, Wis. At 37, he had built the business—which provides components for the auto and aerospace industries—by acquiring mature companies. His next goal was to put together a management team. "John liked acquiring companies more than running them," says Michael J. Cavill, Cade's successor and the second-biggest shareholder. "Our next test, he knew, was management."

Like many founders, Cade relied excessively on his own talents and vision. He was president, director, treasurer, and largest stockholder in Cade Industries. He also served as president of another concern in which the company has a controlling interest.

The day after Cade's death, Cade Industries's stock fell from about $1\frac{1}{2}$ to 1. There were four inquiries about buying the company. "People who knew that John was the key player thought that we would be in a panic," says Cavill. Employees were also worried. "We're here because John saw how we could fit," says Mohsen Pazirandeh, president of Cade's only nonmanufacturing subsidiary. "I was concerned: Will the people who take over have the same vision?"

But less than two days after the accident, the board installed Cavill, a cofounder who took leave from his job as a stockbroker at E. F. Hutton & Co. Directors shifted personnel to cover trouble spots. A general manager of one subsidiary temporarily took command of another one that Cade had been running since firing the president.

Director John Plouff stepped in to oversee the design of Cade Industries's annual report. Its cover will feature an eagle flying toward the sun. "Eagles fly alone and they fly high," says Plouff. "That's John to me." *—J.H.*

GOING PUBLIC

On the Other Hand, Bad Debt Hasn't Been Much of a Problem

Amgen "has not received significant revenue from the commercial sale of its products. The Company does not expect to receive significant revenue from the sale of any of its products in the near future. The Company has only limited experience in manufacturing and has no marketing organization. There is no assurance that products developed by the Company can be manufactured and marketed in a timely fashion or will achieve significant market acceptance."

—The preliminary prospectus of Amgen (#58), a health- and specialty-products company in Thousand Oaks, Calif., February 3, 1986

DOUBLE FUDGE

Ben & Jerry's: A Double Scoop of Business Style

In 1984, Ben & Jerry's Homemade Inc. (#74), of Waterbury, Vt., was about to graduate from privately owned purveyor of upscale ice cream to publicly held manufacturing company. In what should have been his moment of glory, however, founding partner Ben Cohen was ready to cash in his chocolate chips and go find another career.

"We had grown so fast that I had become more of an administrator than an ice cream man," says Cohen, who had once taught pottery-making to emotionally disturbed children. "That was something I'd never wanted to be. Before selling my share of the business, though, I asked myself, OK, what don't you like about it? What is it about 'traditional business' that turns you off? And that's when I decided that if I could run Ben & Jerry's as a 'socially responsible' company, I could stay in the business and feel good about it."

GLENN MOODY

RATHER THAN LEAVE the company he had co-founded with Jerry Greenfield (left), Ben Cohen chose to run it in a nontraditional way.

Because he felt strongly that "the community should prosper right along with the company," Cohen engineered an equity offering pitched first to Vermonters and, a year later, to fellow ice cream fanatics nationwide; $500,000 from the $5.1-million offering helped start a nonprofit foundation that, bolstered by 15% of Ben & Jerry's pretax profits, supports local causes. Internally, Cohen also instituted a five-to-one salary-ratio cap, whereby the lowliest line employee cannot make any less than 20% of what top management makes (currently $50,000).

These moves haven't slowed the company's growth. Sales are $9.5 million, up 1,445% over five years. Still, the boss insists that his scoop-in-hand style of management has survived this rapid expansion.

"I may rely on my [seven-man] management team more for day-to-day decisions," says Cohen, "but we've never had an autocratic environment. Board meetings convene at my house, where we play round-robin Ping-Pong—I tend to get excited sometimes, and playing helps calm me down. Also, I bought an exercise bike for my living room, so the first guy there gets to pedal through the agenda. That can be an important consideration in our line of work."

Competitors inferring that they're dealing with a bunch of frosted flakes here might check with the folks at Pillsbury Co. Last year, seeking to protect its Häagen-Dazs's market share, Pillsbury allegedly tried to block distribution of Ben & Jerry's products to certain East Coast distributors. Ben & Jerry's countered with bumper stickers ("What's the Doughboy Afraid of?"), billboards, and airplane banners. Pillsbury eventually abandoned the blockade, but not before Ben & Jerry's had earned a generous scoop of free publicity for its guerrilla tactics. Says Cohen, "They tried to fight us in court, but we fought them in the public's mind instead. And that's always been our kind of turf." *—Joseph P. Kahn*

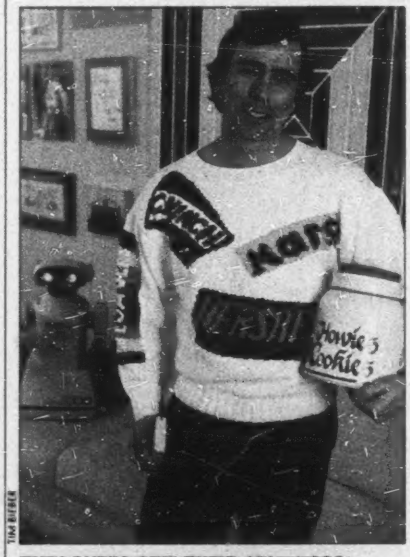
DIFFERENT STROKES

How Badly Do I Want It?

For every Ben Cohen (see story above), there's a Howard A. Tullman.

The sign on Tullman's wall says it all: "Work hard, stick together, improve every day and always ask the question: How badly do I want it?" "The leaders at CCC no longer even ask," says Tullman, founder and president of Certified Collateral Corp. (#31), in Chicago, in a memo to the company's 208 employees. "They know the answer because they live it all day long—every single day: we want it *very* badly and we want it *now*."

These are words by which Tullman lives and works—a distinction he barely acknowledges. "We focus our energies wholeheartedly on the job," he says in a manifesto meant to inspire the rank and file. "Anything that moves us away from our objectives is discarded." He does mean *anything*. Employees should ask themselves, "Can I make the personal investment and the necessary sacrifices of time, friends, and family? Can I accept the loneliness?"



TIM BIEBER

EMPLOYEES GIVE THEIR ALL at CCC, because president Howard Tullman has two simple rules: "Do it all, and get it right."

Many can. Turnover is low at CCC,

which provides auto-valuation data to insurers. According to Tullman, "People *want* rules. We don't have a lot of complex rules here, just two easy ones: Do it all, and get it right."

What of the families of employees? "They love the company," says Tullman. "Maybe people work longer hours at CCC, but when they do get home, they get home excited." —*Nell Margolis*

WIZARDRY OF OZ

Forum Group: The Road to Number 1

1967: Mutz Corp. is founded by Harold Mutz, chief executive officer, and his son, O. U. "Oz" Mutz. The company has no vaunting ambition: it is just one of countless small firms manufacturing fabricated duct pipes and fittings.

1970: In a stagnant economy, people are keeping their cars longer. The auto-parts market is served by 22,000 jobbers, none of them national. Oz and J. Fred Risk, a college friend who later joined the company, see a business opportunity and take the first cautious step, investing in Mid-Con Corp., an auto-parts supplier.

1972: Mutz Corp., with $3 million in sales, goes public.

1974: Now the company understands the auto-parts market and sees a chance to become big by acquiring other companies. It buys Mid-Con.

CHUCK MASON

GUIDED BY THE TEAM OF J. Fred Risk (left) and Oz Mutz, Mutz Corp. became Forum Group. It hit the INC. 100 under both names.

1975: Oz and Fred take over as CEO and chairman, respectively, and continue to acquire auto-parts companies.

1979: Mutz Corp. becomes #14 on the INC. 100. But its go-slow approach to acquisitions in the early '70s hurts: by now the auto-parts industry has some major

WHERE THE INC. 100 ARE BASED

State	1986	1985
California	23	27
New York	13	12
Texas	11	14
Massachusetts	7	4
New Jersey	5	3
Illinois	5	2
Minnesota	4	5
Ohio	4	4
Colorado	3	5
Indiana	2	0
Oklahoma	2	3
Tennessee	2	0
Utah	2	1
Wisconsin	2	0
Arizona	1	0
Connecticut	1	1
Florida	1	1
Kansas	1	0
Maryland	1	4
Michigan	1	3
Missouri	2	0
New Hampshire	1	0
New Mexico	1	0
North Carolina	1	1
Pennsylvania	1	1
Vermont	1	0
Washington	1	1
West Virginia	1	0

GRADUATES

Nine alumni of the INC. 100 kept growing strongly enough to gain elite status of another kind—a ranking among the largest companies in the United States. Six were listed on the 1985 *Fortune* 500, which covers manufacturing companies. The others ranked on *Fortune*'s Service 500, which includes separate lists for companies in transportation, diversified service, and other areas.

	INC. 100 Year	*Fortune* 500 Ranking, 1985
Amdahl	1979	#357
Apple Computer	1982, 83	234
Computer-vision	1980	436
Prime Computer	1979, 80, 81	400
ROLM	1979, 80, 81	397
Tandem	1979, 80, 81, 82, 83	445
Nike	1981	(Divers. Svc.) 64
Federal Express	1979	(Transp.) 19
Southwest Airlines	1980	(Transp.) 40

HONOR ROLL

Nine companies have made the INC. 100 list not once, not twice, but three or four years running.

	INC. 100 ranking			
	1983	1984	1985	1986
C. P. Rehab	73	69	49	75
Consul Restaurants	17	6	19	87
Endevco		1	9	16
Fibronics International		45	40	26
Computercraft		14	8	60
Caremark (formerly Home Health Care of America)		25	25	76
Avante-Garde Computing		72	52	81
Tender Loving Care		54	78	93
The Yankee Cos.		2	93	95

THE TOP 10:

Company (rank)	Sales ($000)
ALC Communications (3)	$467,293
HealthAmerica (20)	462,846
Amer. Healthcare Mgmt. (69)	410,000
Convergent Technologies (39)	395,167
Apollo Computer (14)	295,575
Allegheny & Western Energy (19)	270,458
The Yankee Cos. (95)	213,078
Harvard Industries (72)	205,868
Forum Group (1)	177,207
Endevco (16)	155,287

THE TOP 10:

Company (rank)	1985 empl.	1981 empl.	% growth
Applied Circuit Tech. (94)	237	1	23,600
Amer. Businessphones (6)	236	1	23,500
Ashton-Tate (4)	459	4	11,375
Cade Industries (18)	975	15	6,400
Sterling Software (30)	2,950	50	5,800
Patient Technology (41)	280	5	5,500
ComputerCraft (60)	640	19	3,268
Walker Telecomm. (17)	100	3	3,233
FONAR (82)	193	6	3,117
Fuddruckers (25)	3,000	100	2,900

players. "We've never much wanted to be number three or four in an industry," says Oz. Later that year, Oz and Fred invest in Excepticon Inc., a care facility for the mentally retarded that is headed by a friend.

Early '80s: Medical care has become one of the major growth industries in the United States, with investor-owned hospitals leading the way. Mutz and Risk wonder if they aren't on to something with Excepticon: once again, they see an industry in which they can grow fast and buy expertise through an acquisition strategy.

1981: Mutz Corp. jettisons its auto-parts business, and acquires Excepticon and a group of hospitals and retirement homes. At the end of the year, it changes its name to Forum Group.

1983: The government upsets the hospital market by ending the practice of paying whatever costs are incurred in treating Medicare patients. Now it establishes fees for treating given illnesses. Being in the hospital business is no longer tantamount to having a license to print money.

1985: In response to the shifting health-care scene, Forum sells its acute-care hospitals for $200 million. It refocuses on a health-care niche unaffected by regulation and demographically bound to grow: long-term care for the affluent elderly. The company begins aggressively buying retirement living centers.

May 1986: Forum's 68,585% growth rate puts it back on the INC. 100, this time as #1 and this time as a health-care company. —*N.M.*

TUNNEL VISION

Insituform: Growing With the Flow

Insituform of North America Inc. (#89) knows exactly what it wants from its board of directors. The company, which repairs sewers without tearing up streets, isn't interested in the usual ragtag collection of pushy venture capitalists, nervous bankers, and loyal friends. That's why it pursued and elected Alfred DelBello last summer.

Alfred *who*? Now president of Signal Environmental Systems Inc., in Hampton, N.H., DelBello just happens to have been lieutenant governor of New York, perhaps the capital of leaky sewers. Can DelBello get some business just by picking up the phone? "He's a brilliant salesman," notes vice-chairman Robert Leopold. So too William Ruckelshaus. The former administrator of the Environmental Protection Agency is another recent addition to the board. No doubt it's a coincidence that the company has applied for EPA approval to use its technique on water pipes.

These moves, long a practice of much bigger companies, may help Insituform grab much more of the sewer-repair market. The underground economy is bubbling. In the next five years, midsize and large cities will spend about $90 billion fixing water and sewer pipes, according to a Coopers & Lybrand survey. And it's a tough market to crack, especially with new technology. "In municipalities, there are lots of entrenched relationships," says Leopold. "Civil bureaucrats don't have any incentive to stick their necks out." Another company that earlier tried to market the same technology went bankrupt twice, and Insituform was drained of over $800,000 during its first two years.

BETSY CULLEN

BOARD MEMBER Alfred DelBello, former lieutenant governor of New York, may help Insituform get sewer-repair jobs there.

Insituform's process, licensed from abroad, enables workers to repair sewers from the inside. A specially coated flexible tube, which is inserted through manholes, hardens to create a pipe within a pipe. Insituform's 13 sublicensees pay an 8% royalty fee. "Since you don't dig, you don't have the barricades, the traffic problems, and all the disruption," says Bennie Benjamin, deputy director of Detroit's Water & Sewage Department. Adds DelBello: "For a municipality, this is a godsend." —*J.H.*

FULL DISCLOSURE

So Is It Fair to Say You Don't Consider Yourself to Be An Engineering-Driven Company?

Due to "a combination of engineering design defects, construction defects, and poor operational control of the ethanol plant facilities, the ethanol plant ran inconsistently with frequent shutdowns and corresponding inconsistent ethanol production until equipment failure resulted in a complete plant shutdown on January 17, 1985."

—High Plains Corp. (#61), in Wichita, commenting in its 10-K on problems that shut down its only ethanol production plant for a year.

TWO-TIMER

The Once and Future CEO

Irwin Selinger, a founder who has soared onto the INC. 100 with two different companies, is back for an encore.

In 1979, he guided Surgicot Inc. to #21 on the list. This year Patient Technology Inc., his second medical-products firm, in Hauppauge, N.Y., is #41. Not a doctor himself, Selinger finds out what physicians need by such unorthodox methods as working without pay in a hospital supply room.

He was marketing staplers for Swingline Inc. in 1965 when a stockbroker advised him that health care was a fertile area for business opportunities. "At that point, I knew nothing about health care," says Selinger. But he did know that he wanted to run his own company. To learn the business, he signed on as marketing director of a small medical-supplies company in 1966. Two years later, he met a scientist who had developed a new sterilization system. Selinger acquired the system and founded Surgicot, which reached $25 million in sales in 1979.

Selinger couldn't resist a buyout offer from Squibb Corp. the same year; he continued as chief executive officer. "No one was a more gung-ho Squibb man than I was. I mean, my wife wore Opium perfume because it was made by a Squibb subsidiary."

Within months, the perfume didn't smell so sweet. A company officer criti-

BO PARKER

IRWIN SELINGER, of Patient Technology, has taken two different medical-products firms onto the 100—in 1979 and again this year.

cized Selinger for flying coach, cautioning him that corporate executives flew first class. Then Selinger initiated an acquisition without so much as convening a committee. "I just went to the company president and said, 'Let's make a deal.' " Squibb was appalled. So was Selinger—at Squibb's reaction. "There are no bad guys in this story, just two cultures, two irreconcilable mentalities," he says. Selinger left as a full-time employee in 1980, starting his new firm in 1981 with a line of medical instruments that Squibb had turned down.

Now more than 20 former Surgicot workers are back where they were a decade ago: at an INC. 100 company founded by Irwin Selinger. *—N.M.*

FEMALE DIRECTORS

INC. 100 Boards Are a Male Preserve

How many women sit on this fifteenth-century board of directors? None. How many sit on the boards of the INC. 100? Only 11. And 5 of those are related to the chief executive officer of their respective companies. According to available documents, the 674 directors on INC. 100 boards include 12 doctors, 30 lawyers, and 23 consultants. The financial world supplies eight commercial bankers, 39 investment bankers, and 62 venture capitalists. Over one-third of the board members are company insiders, and nearly one-quarter are considered industry experts. Forty-six are members of the CEO's family. Also included: one figure of national prominence—Leonard Woodcock—and one household name—Dante Jacuzzi.

COURTESY OF THE FRANS HALS MUSEUM

BLUE CHIPS

Some Big Companies Could Have Made an Earlier INC. 100 List

Did three of the most prestigious names in business—DuPont, IBM, and GM—grow in their early years at a rate that would have qualified them for any of the INC. 100 lists?

DuPont did. With a 400% gain from 1804 to 1808, the 184-year-old concern would have landed the 39th berth on the first INC. 100 published in 1979 and the 77th spot in 1980. IBM's fastest five-year growth rate was too low at 181%, logged between 1915 and 1919. GM never would have qualified for the list, since sales during its first year of business in 1908 topped the INC. 100 upper limit of $25 million for the base year. But just for the record, GM's growth rate between 1909 and 1913 was about 192%—enough to earn the 99th ranking in 1979. None of the figures come close to the cutoff of 985% on this year's list, though.

SURVIVORS

Growing Fat During The Disk-Drive Wars

The disasters came one after another, with no letup. Four disk-drive companies filed for protection under Chapter 11. Six others abandoned the business entirely. And most of the others probably wish they had.

Talk about losing your shirt. In a stagnant market last year, foreign producers increased their U.S. sales of rigid and floppy disk drives by about 23%. Many domestic makers fought hard just to survive. Priam Corp., in San Jose, Calif., (#68) was a typical case, losing $20.9 million.

Then what explains the stellar performance of Iomega Corp. (#5)? In 1985, its profits climbed nearly sixfold, to $14.9 million, on sales of $116.5 million.

Iomega changed its marketing just in time—a change that was forced upon it. Back in 1983, the industry's salad days, Iomega faced a crisis. Most firms sold their disk drives to original equipment manufacturers (OEMs) such as IBM Corp., which used the drives in their personal computers. But Iomega couldn't meet industry specifications: its technology has characteristics of both a floppy and a hard disk.

The OEM market, though, ran into trouble in 1985. Stagnant computer sales convinced the OEMs to pull disk-drive making in-house or to subcontract with low-cost manufacturers overseas. Companies like Priam, dependent on OEMs for 98% of sales, were devastated. "Being rejected by the OEMs proved to be a blessing in disguise," says Gabriel P. Fusco, president and chief executive officer of Iomega.

Iomega had scrambled into the aftermarket instead, where demand for add-on hard drives rose from 104,000 units in 1984 to 198,000 last year. The aftermarket strengthened as both companies and consumers looked for ways to upgrade existing computer systems rather than to buy new ones. With more than 80% of its business in the aftermarket and other retail sales, Iomega says it reaped an additional 5% to 7% gross margin, with only 1% to 2% in increased sales and advertising costs. Those numbers made for good reading on the bottom line. *—Greg Critser*

BARRY TENIN

GABRIEL P. FUSCO says that having his disk-drive company, Iomega, rejected by OEMs "proved to be a blessing in disguise."

THE ODYSSEY

Harvard Industries: From Ale to Aerospace

Most INC. 100 companies are under a decade old, but the roots of Harvard Industries Inc. (#72), of St. Louis, go back to the last century. Thereby hangs a tale; Burton Abrams, director and unwitting company historian, tells it:

19th century: A small brewery is established in Virginia.

Circa 1900: The brewery moves to Massachusetts. Using the name of a venerable neighbor, it becomes Harvard Brewing Co.

1919: Prohibition takes hold, forcing the company out of business.

1932: Anticipating repeal of Prohibition, a company at least indirectly controlled by German businessman Wilhelm von Opel reactivates the old brewery.

1933: Harvard goes public in the depths of the Great Depression as FDR initiates the New Deal.

1936: Harvard College brings unsuccessful suit to stop the brewery from using the name and a crimson logo.

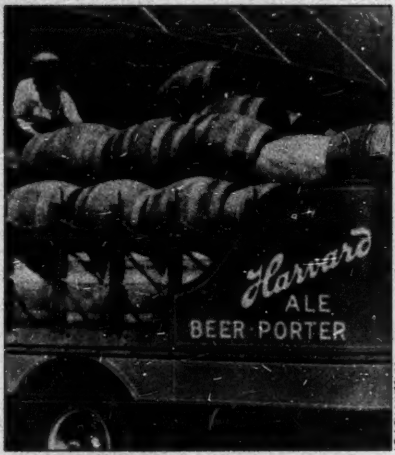
1942: The U.S. government, acting through the Alien Properties Custodian, seizes the Opel group's assets, including Harvard Brewing.

1955–56: The United States sells controlling interest in Harvard Brewing to a private citizen interested in making it a working brewery again.

1956: The new owner sells his Harvard stock to a New York private-label brewery.

1957: Harvard is merged into two real estate firms. Now the erstwhile purveyor of ale is landlord to federal workers at Fort Knox.

1959: Divested of all properties but Everglades Bank in Florida, Harvard is sold to new owners who begin turning it into an electronics company. They hire William



LOWELL MUSEUM

HARVARD INDUSTRIES, which in previous incarnations was a brewery and a real estate firm, now thrives as an electronics company.

Hurley, an engineer, to head up the effort. The company emerges as a government contractor.

1967: Says Burton Abrams, "A fellow who worked at the Securities and Exchange Commission took [Harvard's] file home one weekend and never showed up for work on Monday. Neither he nor the file was ever heard from again."

1984: Hurley, now majority shareholder and chief executive officer, begins a program of acquisition to wean Harvard from its reliance on government contracts. Targeting firms that make aeronautical and automotive products, Harvard makes three major acquisitions in 13 months.

1986: Harvard makes the INC. 100. —*N.M.*

NET WORTH DEBACLE

Papering the Bathroom With ComputerCraft Shares

Why is this man smiling? Billy Ladin, president and chief executive officer of ComputerCraft Inc.(#60), a retailer of microcomputers, watched the value of his 1,838,823 ComputerCraft shares plummet 76.3% during the year ending March 1. Based on a standard workweek, Ladin's stock lost $4,641.26 each hour.

JOHN GROSSMAN

LINE ITEMS

Everything You Always Wanted to Know About the INC. 100

■ Six INC. 100 chief executive officers once worked for IBM Corp.

■ Symbion Inc. (#43), which makes the Jarvik-7 artificial heart and other artificial organs, carries no product-liability insurance.

■ One of Action Packets Inc.'s (#86) best-sellers is Freeze-Dried Astronaut Ice Cream.

■ Robert Springer, founder of Western-World Television Inc. (#56), started his career as a scriptwriter at CBS for the "Perry Mason" TV series.

■ The government of Israel provided some research and development capital for Fibronics International Inc. (#28), which set up a manufacturing plant there.

■ Employees at Compression Labs Inc. (#62) receive an unusual employee benefit: one free hour with a lawyer each year.

■ Ninety of the INC. 100 CEOs were born in the United States. The rest were born in Sweden (2), India, Israel, Wales, Canada, Poland, Argentina, and The Netherlands.

■ And one was born in the Soviet Union.

■ Biomet Inc. (#71) started in 1977 with a $500,000 loan from the Small Business Administration. Since then, in addition to paying installments on the loan, Biomet has paid about $6.5 million in federal income tax.

■ Working in Fargo, N.D., Stanley E. Larson was the largest North American Steinway piano distributor before becoming CEO of High Plains Corp. (#61), an ethanol producer.

■ INC. 100 companies have collaborative ventures with some of the largest firms in the United States, including Texaco, General Electric, Johnson & Johnson, Wang Laboratories, and Hercules Chemical.

■ The vice-president of finance at Consul Restaurants Corp. (#87) is John Hamburger.

■ The underwriter for SIS Corp. (#50), which develops restaurants for Wendy's, was McDonald & Co.

■ Consolidated Stores Corp. (#84) helped liquidate the last cars produced by De Lorean Motor Co.

■ Founders are still running 73 of the INC. 100 companies.

■ Irwin Selinger, CEO of Patient Technology Inc. (#41), personally writes a letter to his 280 employees once a month.

■ The perils of growth: Harvard Industries Inc. (#72) acquired small manufacturers that may be liable for toxic-waste cleanup in three states and Puerto Rico.

■ Forty-three companies on the INC. 100 list have employee stock ownership plans.

■ Allegheny & Western Energy Corp. (#34) grew overnight from $13 million in sales to $270 million with its buyout of a natural-gas company.

■ Distribution of the television game shows "Wheel of Fortune" and "Jeopardy!" accounted for 82% of King World Productions Inc.'s (#64) sales in 1985.

■ 1 Potato 2 Inc. (#12), a restaurant chain, is the fastest-growing small *bankrupt* company in the United States. It filed for protection under Chapter 11 on November 15, 1985.

■ Five INC. 100 CEOs have founded other firms during their business careers.

■ Helm Resources Inc. (#65), an energy and agriculture company, grew at a rate of 1,806% over the past five years. But it trimmed its payroll from 307 employees to just 214 over the same period.

■ Eight states have never been home to an INC. 100 company since the first list was published in 1979: Arkansas, Hawaii, Maine, Mississippi, Montana, North Dakota, South Dakota, and Rhode Island.

■ Only 1.5% of all long-distance telephone customers use Allnet Communication Services Inc., owned by ALC Communications Corp. (#3).

■ The National Aeronautics and Space Administration used an Ashton-Tate (#4) program to manage information for the *Voyager 2* mission to Uranus.

■ Eighty-three companies on the list were founded in the last decade.

■ The occupancy rate at hospitals run by American Healthcare Management Inc. (#69) was 34% in 1985, compared with 54% at investor-owned hospitals nationwide.

■ Veterinarians across the country send animal electrocardiograms over the phone to Animed Inc.'s (#80) office in Roslyn, N.Y., where the firm makes diagnoses.

Inflation topping 15%, the prime nudging 20%, and business failure rates skyrocketing. When it came to starting a company...

AAH, THOSE WERE THE DAYS

BY JOSEPH P. KAHN AND STEPHEN D. SOLOMON

SIX YEARS AGO, THE ENTREPRENEUR listening for the music of opportunity amidst the din of economic disaster had to fine-tune his receiver—or surrender to the static. Dial in any wavelength and there were few clear signals one could confidently decode. Who knew, for instance, whether start-up ventures would have access again to cheap capital—or the prime-lending rate would continue to flirt with 20%? Who could predict with certainty, say, the shake-up in the airline industry that deregulation would cause, or how cost-control legislation would revolutionize the health-care industry?

In putting together the INC. 100 list of the fastest-growing public companies, however, we couldn't help notice the large number of companies born during this era of uncertainty and unrest. We wondered: Did they know something nobody else knew? Hear things no one else heard? Have a crystal ball hooked to a rooftop dish? Punching our own playback button, we decided to rewind the tape and listen once more to the background noise so dominant at the beginning of the decade. Some surprising sounds emerged.

Nineteen eighty, you remember, was a Presidential election year, and the air was filled with debate and despair. Followers of the Ayatollah Khomeini held 52 Americans hostage in Iran. World oil supplies were short, tempers shorter. As the political season began in earnest, President Carter started arguing with Ted Kennedy, Kennedy argued with Ronald Reagan, Reagan argued with Carter, and all of them argued with Paul Volcker, who wasn't even running for office. Economists spoke of supply-side theory and reindustrialization, yet the enduring images beamed back to the electorate were of a U.S. President omitting crucial sections of his anti-inflation address when two pages of the speech inexplicably stuck together, and of a Vice-President-to-be labeling his future boss's theories "voodoo" economics.

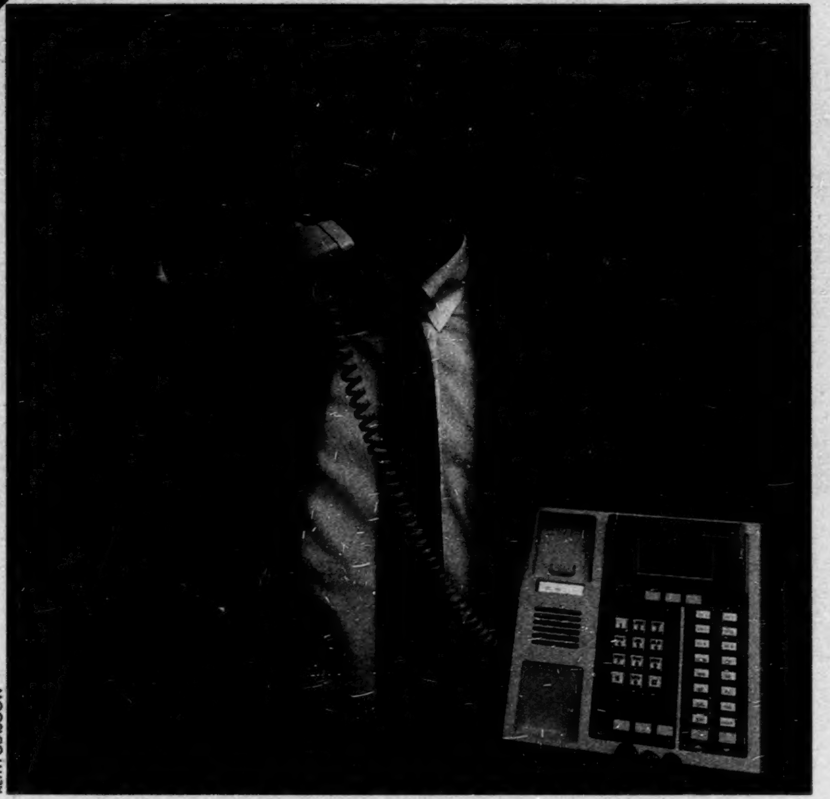
Actually, as Mr. Bush himself might concede today, voodoo had a certain appropriateness for an economy by all rights more dead than alive. In 1980, consumer prices soared 13.5% and the prime interest rate climbed past 20%, higher than ever before. Corporate profits fell about 9% and productivity 0.5%. Businesses were failing at the rate of 42 per 10,000 concerns, up from 28 the year before—and up again, to 61, in 1981. Energy costs hit an all-time peak in 1981, six and a half times their level of 11 years earlier. Companies shopping for start-up money in 1980 were further hampered by a general lack of venture capital (a total of only $1.1 billion, compared with $2.8 billion in 1983) and an anemic initial public offering market ($420 million raised by venture capital-backed firms, versus $3 billion three years later).

Where so many heard only the buzz of bad economic times, however, others marched forward to a different sort of tune: the tune of opportunity. For Forum Group Inc., the #1 company on this year's INC. 100, it was the opportunity to move nimbly from the auto-parts business to health care and to the burgeoning nursing-home market. For Durakon Industries Inc. (#78), maker of bed liners for pickup trucks, it meant capturing a commanding (60% to 70%) share of a market expected to continue growing dramatically. For VLSI Technology Inc. (#9), it was the ingenuity to adapt product to market so swiftly that more than half its 1985 revenues came from products introduced during the same year. And for Jet America Airlines Inc. (#24), it was seizing the opportunity offered by deregulation to establish full-service routes to a variety of midwestern and southwestern cities out of Long Beach (Calif.) Municipal Airport.

Whatever their business and whatever the economic conditions when they started, companies on this year's list and on lists past have all had a much more important common characteristic than breakneck growth. They have, as individual companies and as a group, provided a blueprint of the major business opportunities provided by the American economy over the past decade, opportunities created by vast changes in technology, politics, and social and economic policy.

Look at the *Fortune* 500 and you won't find such ready evidence of new opportunity. The *Fortune* list is a rich anthropological dig into another era of American business history, a time when the steel, the auto, the chemical, and other heavy manufacturing industries made the United States the world's preeminent industrial power. You won't find any auto companies on the INC. 100.

Look at the INC. 100 lists since the first was published in 1979, and you'll have a tour of recent business history—and,



KEITH GLASGOW

SPIRALING INTEREST RATES had Computer Telephone on the financial hook in 1980. CEO Stephen Ide wondered "if it took some sort of death wish to start a company when we did."

perhaps, a glimpse of the kind of companies that will dominate tomorrow's economy. Some will grow into big companies in their own right; others will be absorbed by *Fortune* 500 firms and influence their direction, as biotechnology companies have with some big pharmaceutical manufacturers. Still others will die because the opportunity they saw turned out to be a chimera, or because they mismanaged the brief chance they had.

The tour can start with the INC. list of 1979, when Federal Express Corp. (#19) was tapping a growing need for fast package delivery and establishing what became the model for a major new service industry. Or to the 1981 list, when Nike Inc. (#29) was taking advantage of vast social changes that brought new interest in fitness and leisure. Or look at the 1982 list and see Apple Computer Inc. (#1) establishing a personal-computer industry.

This year's list is no different. It is a window into the sea change taking place in the $387-billion health-care industry, where the major opportunities are now in cost control. Look at HealthAmerica Corp. (#20) and United HealthCare Corp. (#49), two of the leaders in health maintenance organizations (HMOs). Look at the other medical companies that provide such cost-cutting services as home health care, home diagnostic kits, and outpatient surgical and diagnostic clinics. Or look at the nine telecommunications companies that are seizing the opportunities created by the breakup of AT&T's monopoly. Or at the two airlines taking advantage of deregulation. Or at the 26 computer-related companies, including Ashton-Tate (#4), already a pacesetter in software, and Apollo Computer Inc. (#14), a leader in engineering workstations, a fast-growing segment of the computer market. Or at Expeditors International of Washington Inc. (#7), trying to exploit the growing need for fast delivery of business packages overseas. Will it be the next Federal Express?

If the success of these businesses seems routine today, turn up the volume and listen to the faint sonata that their founders heard before it played loudly enough for the rest of us.

Nothing would have been possible for Computer Telephone Corp. (#53), if not for the landmark *Carterfone* decision in 1968. The Federal Communications Commission began unraveling the AT&T monopoly in telecommunications by permitting the interconnection of non-Bell equipment to the Bell System's phone lines. Nine years later, a federal judge shattered another part of the monopoly by allowing MCI Communications Corp. to compete with AT&T in long-distance service.

It was an entrepreneur's dream, a multibillion-dollar market opened to competition for the first time. Hundreds of small companies responded by manufacturing, supplying, leasing, installing, and servicing the interconnect equipment. "These companies found whatever piece of equipment they could and sold it on the basis of it being cheaper than what you could rent from AT&T," says Stephen Ide, who was then vice-president of operations for Rolm of New England, an operating company of Rolm Corp. "I remember sales calls in the mid-70s when you had to explain to customers that it wasn't illegal to be doing what you were doing [selling non-Bell hardware]."

In 1980, Ide and a few colleagues left Rolm to start Computer Telephone. The opportunity that had its genesis in *Carterfone* had changed substantially by then. "The small-business person was not getting the full spectrum of technological services available to *Fortune* 1,000 companies. They were dealing with people who couldn't provide the things we could—the full spectrum of services. We were for small business, to get around the problem of people supplying little parts, but not the whole."

Ide started the company with the idea of providing comprehensive phone-system design, installation, and maintenance services, primarily to businesses with 150 or fewer phones. But it was a terrible time to start a business, opportunity or no. "Our first two years were extremely tense," says Ide. "Thirty percent to 40% of our business is leased, and that makes it extremely interest-rate sensitive. Customers buying into our phone systems locked into fixed rates. But as interest rates rose, we had difficulty attracting new customers away from Bell's rentals. There were months [back in '82] when we sold or leased nothing—zero. We began wondering if it took some sort of death wish to start a company when we did."

Though it sold itself as a sophisticated telecommunications firm, the company could afford only a single-line phone in its own office, a converted stable in Natick, Mass. "Here we were, selling very sophisticated equipment, but we couldn't even afford it for ourselves. We made every effort to keep customers away from headquarters in those early years," Ide says. To survive, Ide continues, "everyone had to be a salesman. Our single technician was not a salesman, but he used to telemarket for us."

Ide never spent much time speculating about a possible divestiture of AT&T's operating companies. "Back then," says Ide, "asking ourselves, 'What if AT&T deregulated?' was like asking, 'What if we could run wires to the moon?'" Yet when divestiture came, Computer Telephone moved quickly to capitalize on an opportunity created by the change. It signed on as a partner with New England Telephone & Telegraph Co., a NYNEX Corp. subsidiary, to sell its facilities and services. "[These] are the same people we fought tooth and nail in 1980 to 1983," says Ide, a little incredulously.

"Our industry is at a transition point," he says. "In the next couple of years there will be three or four dominant players in any given region. Everyone's lowering profit margins to keep market share, but whether they can keep that market share is another question. We might wind up acquiring other companies or the deserted customer bases caused by company failures.

"It's still survival of the fittest."

Fittest." Now that word has a nice ring for Phil Bredesen, who founded HealthAmerica Corp. (#20) in 1980. The company owns and operates HMOs, which provide health-care services for a prepaid fee. Bredesen can make a healthy profit by keeping people fit. Even written in a doctor's scrawl, the prescription is easy to read: administer a lot of preventive medicine, and try to catch problems early. If hospital care is needed, treat patients efficiently and get them back home quickly.

That wasn't where the big opportunities resided in health care in the 1970s and early '80s. Third-party payers, including the federal government, reimbursed hospitals and other health-care firms for whatever services they provided to patients; with no incentives to hold down costs, national health-care expenditures rose from $75 billion in 1970 to $248 billion 10 years later. For investor-owned hospitals and other health-care companies, double-digit increases in sales and profits were routine. Meanwhile, employers were hard hit as their bills for health-insurance benefits soared about 20% a year.

Bredesen, an executive with a hospital management company, saw that this situation couldn't continue. "Around 1980, the health-care field in general seemed ready for new approaches," he says. "Everywhere, you heard a whole chorus of employers' complaints about health-care costs." And no wonder. "Hospitals were doing anything to get patients to stay in longer. I mean, you'd get a woman in maternity for a normal delivery, no complications—and if she was still there on the third night after giving birth, the hospital would throw a steak dinner for the husband and wife."

Bredesen started HealthAmerica in 1980 with just $50,000 in seed capital from a quartet of private investors and a $250,000 line of bank credit. Venture capital was so tight that he didn't even bother to try. "Starting out with more money might have made us fatter and happier," he says, "but I'm not sure that would have been good for us. If you're starting out to run HMOs and you've got only $50,000, you do everything as if every cent counted—which it does."

KEITH GLASGOW

BEFORE HE ACQUIRED firms specializing in medical cost control, Caremark's James Sweeney had a macroview of the health-care field: "We'll have to grow to $500 million just to survive."

HMOs have been operating in the United States for half a century, but Bredesen moved into the market at just the right time. After passage in 1973 of a federal law promoting them, the number of HMOs increased 214% to 226 by 1980. But many were badly run and losing money. "A lot of the HMOs were starting to fail, and there was a feeling that if Reagan got elected, there would be an even greater drive to pare down costs," says Bredesen.

HealthAmerica got contracts to manage sick HMOs, with an option to purchase. But the gathering storm over health-care costs was changing the market faster than Bredesen had figured. One change was that employers, trying to hold down the rising cost of benefits, were pushing more and more workers into HMOs. The second change shook the industry to its core. In 1983, the government threw out the cost-plus method of reimbursing treatment of Medicare patients, replacing it with a schedule of fixed fees for each diagnosis. Now hospitals *lost* money by keeping patients too long. Only the most efficient hospitals—those that conducted fewer tests and sent patients home faster—could make money.

The new reimbursement policy brought a revolution to health care that you can see today: the average patient stays in the hospital fewer days and the percentage of empty hospital beds has increased. Since idle capacity is as bad for hospitals as it is for steel companies, such for-profit hospital chains as Humana Inc. are locked in an increasingly hot battle to attract patients. Their strategy: start or acquire HMOs and walk-in medical offices—and use them to funnel patients into their hospitals.

"A window we had thought would be open wider, for longer, was closing fast," says Bredesen. "When we started out, we thought we had, oh, five or six years. We began to see that we didn't. The market was getting flooded." So HealthAmerica shifted strategy, acquiring and starting HMOs instead of just managing them. "We acquired some that were in worse condition than we would have wanted, that we probably wouldn't have bought if time had been on our side—but they were available, we could get them, and we had to establish our presence in the market in a relatively short time." By early 1986, HealthAmerica owned or managed HMOs in 38 markets, with an aggregate enrollment of 895,000 patients. With revenues of $462.8 million and earnings of $11.5 million, it is now one of the largest operators of HMOs.

The same big move to contain health costs created an opportunity for James Sweeney. In 1979, Sweeney, who had

KEITH GLASGOW

DESPITE DARK FORECASTS for the solar energy industry, CEO Ronald L. Wilder (left) and CFO Thomas D. Taylor, of Solar Age, hope diversified products will replace federal tax credits.

spent four years as a health-care consultant for Arthur Young & Co., founded Home Health Care of America Inc. to deliver complex medical support services to patients at home. "My background in the industry gave me more of a macroview," says Sweeney, "but when we started, there was still such a strong bias toward hospitals that we didn't get a dollar's worth of [carrier] reimbursement for the services we offered. That situation and the malpractice issue made venture capital people very skeptical of us—in fact, the first eight or nine turned us down. But logic was on my side. I knew something had to give within the system. Except for Medicare, the last big wave of federal legislation had come in the 1930s. Since then, everyone had been well served but the patient."

The company, which became profitable in its second year, has introduced such services as home chemotherapy and home antibiotic infusion therapy. It was positioned perfectly for the cost-control move that resulted in patients leaving costly hospital beds much sooner than before—leaving hospital beds for beds at *home*, where Home Health Care could pick up the treatment.

Sweeney didn't stop there. Last year, Home Health Care acquired two companies, exploiting different opportunities in medical cost control. One, renamed America's Pharmacy Inc., feeds off the home-care division by providing drugs and other medical products by mail order. The other, Health Data Institute Inc., helps insurance carriers and big companies pare down their medical costs. It provides analysis and management systems to prevent unnecessary expenditures and inappropriate use of medical services. Folded into a holding company called Caremark Inc. (#76), the three businesses generated sales of $74 million and earnings of $7.4 million last year.

Caremark must grow to $500 million by 1990 just to survive, says Sweeney. "When you look at the $5 billion to $6 billion spent annually on home health care in this country and realize no one company has more than 1% of that market, you have to believe that consolidation within this industry has only begun. I expect about 15 'supermeds' to emerge within the next 5 to 10 years, and it's my job to stay ahead of the power curve."

For at least one INC. 100 company, staying ahead of the power curve is more than a turn of phrase, it's a way of life—albeit an increasingly tenuous one. Identifying an opportunity and exploiting it are not always enough for an entrepreneur. The market that creates an opportunity can take it away, too.

It all looked so promising once for Solar Age Industries Inc. (#27), of Albuquerque. When it was founded in 1979, the price of oil was approaching its all-time high. Federal energy tax credits gave consumers an incentive to buy solar equipment, and enough did so to spur the growth of the industry from 45 companies in 1974 to more than 200 a decade later.

Ronald L. Wilder, a distributor of American Indian art, helped start one of those companies, Solar Age, after he saw a window solar collector at a home show. "Everybody was looking for energy-saving devices," says Wilder, the president. "The news media made everything look devastating, every paper or magazine you opened, every TV or radio you turned on, there it was. I think that just about everybody in the country was worrying, 'What's going to happen to my fuel bills?' I thought you could put a bunch of these [solar collectors] on a truck and go up and down the street and sell 'em like watermelons."

They sold well enough to launch Solar Age to $15.3 million in sales last year. But this year the bottom has fallen out of the market. The federal energy tax credits that made homeowner investment so attractive expired at the end of 1985, and Congress has been wrangling over an extension. U.S. crude oil prices have plunged from more than $36 a barrel to less than $14 in March, allaying concerns about energy costs and widening the competitive gap between oil and solar. Experts predict that half or more of the solar industry will fold if Congress doesn't help.

Will Solar Age be one of the casualties? "There's no way for me to minimize the impact, because it's there," says Thomas D. Taylor, the executive vice-president and chief financial officer. Sales in 1986 are down 65% from last year. In response, the company has started cleaning out its sales force. "It's real easy for salespeople to get lazy and begin to rely on tax credits to do their jobs for them," says Wilder. "Then the credits go, and they don't know how to handle it. We've had to let some of the old sales staff go and bring in new people who never *heard of* the words 'tax credits.'" Solar Age is diversifying, too, by making a prefabricated greenhouse-cum-sunroom that attaches to a house.

Like so many companies on this year's INC. 100 list, Solar Age was conceived out of the major social and economic forces roiling the nation. Now its opportunity may be disappearing as convincingly as it once appeared. That is one of the major risks of being an entrepreneur, listening as you must to the changing music of opportunity without the capital base and diversification that cushions large companies. In good times or bad, the sound never ceases. ☐

Additional research for this article was provided by Leslie Boltax Aizenman, Karen Angeline, and Nell Margolis.

SEEING RED

Why one out of every three companies on the INC. 100 is losing money.

BY TOM RICHMAN

THERE IS ANOTHER WAY, APART from growing very quickly, by which INC. 100 companies distinguish themselves from the rank and file of American business. They are . . . shhhhh . . . a great deal more likely than other companies—those, say, on the *Fortune* 500—to be money-losing propositions.

Unprofitability is a frequent but not always uninvited companion to hypergrowth. It rarely, however, gets much publicity. The companies involved would rather talk about their strides at the top line than losses on the bottom. And you won't see losses highlighted, for example, in any of the boxes scattered throughout this section. In fact, you've got to be willing to do your own counting even to discover it. Go to the list of companies that begins on page 44, run your finger across to the "Net income" column and then down. Find the '85 net incomes, beginning with Piezo Electric Products Inc. (#2), that are embraced by parentheses. Did you count 30? That's how many there are.

Thirty percent of this year's INC. 100, with their exploding sales, showed losses. In contrast, only 6.8% of the *Fortune* 500 last year failed to report a profit even though total revenues of *Fortune* 500 companies actually slumped by 1% over the period 1981–84. Surprised at the difference? David Birch isn't. "If it were *not* that way," says the Massachusetts Institute of Technology researcher, "it would surprise me." Birch, who did pioneering work on the role of small companies in job generation, observes that rapid growth is always risky. "Companies that rocket up," he says, "often rocket down. Look at Apollo." Apollo Computer Inc. (#14) has grown at a 205% compound annual rate for five years, giving it an early lead in the market for engineering workstations. Its reported loss of $1.5 million in 1985 after three profitable years, if not a surprise to management, was certainly not part of the company's long-range growth strategy. Like many companies that grow fast in a market they themselves helped to create, Apollo has run up against new competition from the bigger companies that their market has attracted.

Fast-growth companies aren't immune to bad luck, errors, and plain boneheadedness. They are also vulnerable to conditions that, usually, aren't fatal to larger companies. Because they frequently rely for their sales on a single product, technology, or market, for example, what might be a pothole to a bigger company with other revenue sources and a larger capital base looks like a ditch to the small growth company. Further, explosive sales growth often requires a company to add costs—payroll, plant, equipment—at an equally rapid rate. If the growth rate slows abruptly, a company can be caught with excess capacity, personnel, and fixed costs. Then it is time to pare down quickly, with big write-offs, or face worse problems later. The INC. 100 landscape is dotted, if not littered, with the corpses of onetime high fliers like Air Florida System Inc. (#14 on the 1982 list), which couldn't adjust to its changing competitive landscape. It filed for Chapter 11 protection and was acquired by Midway Airlines Inc. in 1985.

THE TOP 10:

Company (rank)	**Net income as % of sales**
Certified Collateral (31)	24.12%
Energy Oil (8)	19.74
Electronic Tele-Comm. (36)	19.59
Forum Group (1)	19.13
Enzo Biochem (100)	19.12
Centocor (38)	15.49
DEST (67)	14.10
Iomega (5)	12.79
V Band Systems (22)	12.78
King World Productions (64)	12.11

For bad luck, nothing tops the falloff in world oil prices that has killed demand for High Plains Corp.'s (#61) high-priced ethanol, which it proposed to mix with gasoline to make gasohol. G. D. Ritzy's Inc. (#54) erred, however, according to analysts, by not establishing a clear marketing proposition for its fast-food restaurants. What are they? A chain of burger restaurants? Or ice cream parlors? Nobody knows. Then there is (or rather, was) Chemical Investors Inc., which closed its many doors in June 1983, just a year after it sat in the #9 spot on the 1982 INC. 100 list. CI's founder and chief executive officer, Gary Zintgraff, had a lust for acquisition but very little taste in what he acquired, and not the slightest talent for managing any of them.

Growing quickly on the tiny capital base that most young, first-spurt companies have leaves little room for even small errors and none for egregious greed.

No, what's surprising about bottom-line losses among the INC. 100 is not that they crop up so often, but how frequently they are either cultivated deliberately or calmly taken as inevitable—part of the planned investment in growth. Companies competing in new industries or in significant markets in older industries often buy sales growth at the expense of profits. They're hoping to build market share; profits, presumably, will follow. Not every negative net income reported by a company on an INC. 100 roster qualifies as investment, but some do.

Comp-U-Card International Inc.'s, for example. CUC (#48) runs a computerized shopping service with 1985 revenues of $28.7 million and an accumulated earnings deficit at year end running to more than $10 million. The company recorded losses from its 1973 founding until 1984 while it built up its database of consumer products, prices, and vendors. It recruited members who would use their telephones or home computers to shop and buy through the database. Number of members, not dollars of profit, was the quantitative goal each year.

To have been profitable before 1984 (when it earned a scant $31,000) would have been shortsighted, CUC founder and CEO Walter Forbes argues, because it would have meant that the company wasn't spending enough to sign up new members. The formula, he says, is fairly cut and dried. Every new member costs the company about $30 in direct-mail costs to recruit and, on average, generates about $30 in revenues for the company in his or her first year. Thus, a new member represents a first-year loss because revenues don't come close to covering marketing costs *and* overhead. But membership renewal rates—dependent upon keeping the customer satisfied—run about 80%, and renewals cost relatively little. Thus, every new member means a loss in the short run but a profit in time. Taking short-term profits by holding marketing costs down, says Forbes, would have jeopardized long-term profitability. Last year, with membership reaching 4.5 million, the company—finally—earned $3.1 million to begin reducing its deficit.

Jacor Communications Inc.'s (#73) four consecutive years of losses may also qualify as an investment. They were part of Terry Jacobs's plan, or, at least, an anticipated consequence of it. It isn't profit that has occupied Jacor since its 1979 founding, but cash flow—which has been consistently positive and consistently improving. The losses are, by the broadcast industry's reckoning, an accounting fluke.

Jacor acquires radio stations and, by bringing better management to bear, improves their cash flows—essentially income before depreciation, amortization, and debt service charges. Broadcasters, says Paul Kagan, who publishes media-investment newsletters, compute the value of a station at roughly 7 to 10 times its cash flow. So, even though heavy depreciation and amortization (of intangible assets) charges kept Jacor's earnings in the red until 1985 when it made barely $100,000 on revenues of $14.4 million, the market values of its stations have grown substantially as their cash flows have improved under Jacor management.

INVESTING heavily in product development, especially when the market for that product is new and still unshaped but likely to expand geometrically when growth does begin, is a classic entrepreneurial strategy. But risky. And doubly risky, it would seem, when the product is technology-based. Quite a few of the deficit-ridden INC. 100 companies have elected to grow this way, all of them believing, of course, that *their* product will set the technology standard *and* be the one to take off when the market does. This strategy comes with several options. One is to find some other source of operating revenue—research-and-development contracts, maybe, or an acquisition with cash flow from an existing product—to support the development and, perhaps, to buy some additional time; another is to live entirely off capital, focusing strictly on development and letting deficits accumulate, with faith that once the product gets to market, those losses will be quickly erased.

Datacopy (#77), Amgen (#58), ORS Automation (#35), and FONAR (#82) took the latter tack, and all have shipped substantial earnings deficits while racing to convert the technology they've developed into a product they can sell. Time is as important an element as money to the success of this approach, argues Datacopy Corp. president and CEO Rolando Esteverena. Such companies as his, which developed machines for converting pages of print and other images into digital data a computer can process, have to take aim at two windows, which aren't always precisely coincident. One window, Esteverena says, is framed by feasibility—the state of the technology will determine when the product can be made. The second window is framed by demand—you can't sell the product until the market wants to buy.

A small young company with no alternate revenue source can't afford to hit one window and miss the second; it must pass through both on the first try. Amgen's strategy for its biotechnology products is much like Datacopy's. "Small companies like ours," says the company's director of strategic planning, Philip J. Whitcome, "will either emerge as successes, or we'll be absorbed or just fade away. [Without that initial success] we can't survive on our own." Which is why shareholders can be skittish about such strategies, especially when losses, even planned losses, stretch out quarter after quarter.

The other tack, that of finding a revenue source to offer interim support, sounds like the safer, more conservative course to follow. A miscalculation in timing or an obstinate technological problem needn't be mortal when there is something on the bottom line to cushion the shock. But experience sometimes belies theory. Look at Piezo Electric Products, with $76.4 million in sales, up from $246,000 five years earlier. Its cushion turned into a rock, and a sharp one at that.

Tiny Piezo, with just $3.5 million in sales and a $2.3-million loss in 1983, paid $11.1 million in early '84 for a maker of copper cable. The cable manufacturer's projected profits would, Piezo figured, cover the development costs of the new products the parent company was working on. But the purchase was, to say the least, ill-timed. Copper prices dropped, customer demand fell off, union labor went on strike, and the cash cow Piezo thought it was buying turned out to be a dog with a voracious appetite that accounted for most of the $22.2-million consolidated loss last year. In March, Piezo's cable-making subsidiary filed for liquidation under Chapter 7 of the bankruptcy laws.

Admittedly, hindsight encourages snideness in reports of a company's misfortune. Management consultants, security analysts, competitors, and journalists take cheap shots from time to time. (How foolish of Piezo to buy a copper-cable company just when prices were about to fall.) Like-

COMPUTER-GENERATED DESIGN: COLBURN/BLAZOK wise, you could excoriate Billy Ladin for the bad judgment that brought ComputerCraft Inc., #60 on this year's list and #8 last year, close to failure. But then you'd almost have to make the same criticism of Avner Parnes, chairman and CEO of MBI Business Centers Inc. (#70), which last year netted $2 million on sales of $50.5 million. Their growth strategies weren't so different.

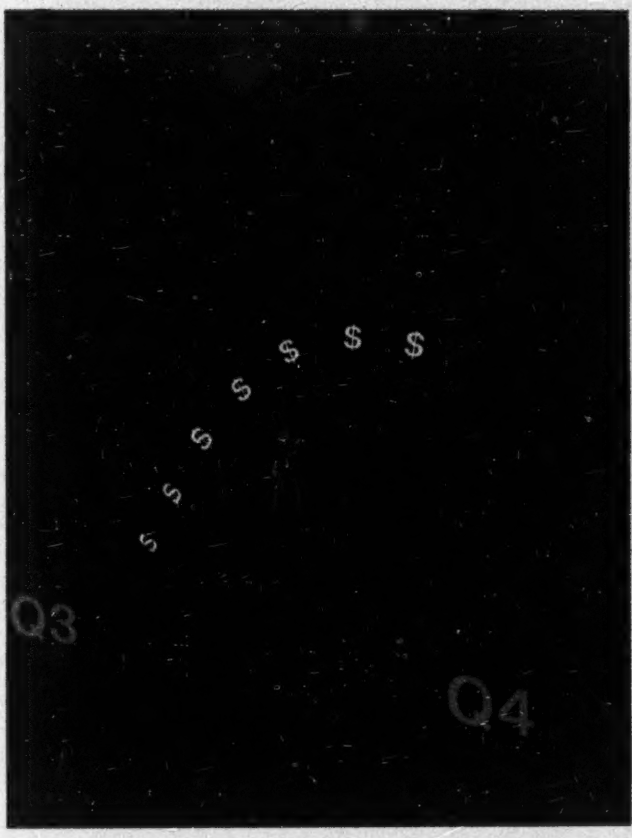
ComputerCraft and MBI both opened retail computer stores. They both planned their expansions so that new stores would benefit from economies of scale in advertising and could be served from a central distribution point. They both installed experienced managers. They kept only the best-moving brands on their shelves. Both followed time-honored growth strategies. The main difference between the two is that ComputerCraft went after the consumer market and MBI sold primarily to business and government. Who could have known a half dozen years ago when their strategies were selected which of those two markets, if either, would collapse in 1985? Yet Parnes is a hero; Ladin is not.

IF PROFITABILITY IS AN EVENTUAL objective of the young, growing company, it is also a useful measuring tool for gauging management's performance. A difference between companies on the *Fortune* 500 and those on the INC. 100, though, is that negative profitability is nearly always an indicator of poor management performance in the former. In the latter, on the other hand, the right negative profitability, or loss, can indicate a job well done. And the *right* loss, as Datacopy's Esteverena puts it, is the one that was planned on. "Negative earnings are not a problem," he says, "so long as you have a kept plan." Robin Grossman, a vice-president at Salomon Bros. Inc., the New York City–based investment banking firm, says that losses among the companies in Salomon Bros.'s venture capital portfolio don't necessarily bother her. But, she adds, "We like to see them meet their business plan."

The point is that a fast-growing small company with big losses shouldn't be presumed profligate. The obverse of expanding profits is declining losses, which are equally useful signposts of progress if the rate of decline meets budgeted expectations—or of trouble if it doesn't.

ORS Automation, which is developing products that help industrial robots to "see," lost $2.2 million on sales of $4.8 million in the first nine months of 1985. Yet ORS's vice-president of finance, Donald Shelton, gives the impression that no one runs a tighter budget than he. The company's five-year strategic plan, revised each year, is broken down into quarterly revenue-and-loss goals, and every phase of every product's development and marketing is budgeted and subject to monthly review. Without strict budget discipline, Shelton says, it is always easier to spend a little more on a project that isn't going well than to cut off its funding and reallocate the money to a more promising area. "You could throw millions of dollars into marketing [a bad product]," he says, "and most of it would go down the drain. The budget lets you exercise good business judgment in deciding how much to spend."

BUT WHEN ALL THE STRATEGIZING and budgeting is done, the INC. 100 is still about sales growth, not profitability. Maryam Wehe, a consultant with The MAC Group, in Washington, D.C., observes that Americans have a fascination with growth for its own sake, and a national assumption that growth is good. "Society endorses it. Bigger," she says, "is almost always seen as better, pushing back the Western frontier and so on. In America, you're taught this all your life. The fact that INC. publishes this list just feeds into that lust for growth." But it is also worth remembering that a lust for profitability, a common criticism of some very large public companies, can also be damaging to a business when long-term considerations are sacrificed to short-term gain.



Some growth among the INC. 100 companies *is* lustful and reckless, valued for itself and with regard for no other ends. But ambition of that sort predates the 100. Zintgraff of short-lived Chemical Investors sought to emulate Jimmy Ling, the Texas entrepreneur and prototypical conglomerateur, who built LTV Corp. from scratch in 1947 to the 14th spot on the *Fortune* 500 in just 20 years. Ling's principal objective in building a business empire was size, not coherence. The whole of LTV has never exceeded the sum of its lackluster parts.

What is surprising, given the lust that Wehe points to, is not that the occasional INC. 100 company has failed so spectacularly as to wind up in liquidation, but that so many have not. Of the 80 companies that have been listed on the 100 while showing a net loss on their income statements, only 9 have subsequently filed for bankruptcy. Four of them—Chemical Investors, Allied Technology, Psych Systems, and Movie Systems—are no longer in business. The others continue to operate; either they are reorganizing or they have been acquired by other companies.

Anyone who nevertheless finds disturbing the idea that 30% of the country's 100 fastest-growing companies in 1985 reported negative income should consider how jobs are created and how economies grow. MIT's Birch, in 1980, reported that those cities and regions whose economies were growing the fastest actually lost a higher proportion of their businesses to failure every year than did the declining Rustbelt. This is no paradox, Birch said. The high-growth regions had more failures, but they also had more births. The number of births, not the number of failures, makes the difference. "It simply reflects the fact," says Birch, "that the healthier an economy is, the more active it is and the more its corporate population is turning over."

Losses and failure are an intrinsic part of economic growth—the macroeconomic corollary of nothing ventured, nothing gained. Are INC. 100 companies unstable, volatile, and risky? Of course they are. Why shouldn't they be? □

LOOK BEFORE YOU WEEP

Most fast-growing companies headed for trouble give investors plenty of warning. The trick is knowing where to find it.

BY ROBERT A. MAMIS

SOON AFTER IT WENT PUBLIC IN 1981, the common stock of two-time INC. 100 member Vector Graphic Inc. sold as high as $16.50. When last seen in over-the-counter trading this winter, however, the same nicely etched share couldn't even fetch a cup of coffee.

Well, that wouldn't be the first time a stockholder lost real money in a supposedly expanding company—a fact all too verifiable by the droopy stock market performances of more than half this year's putatively fleet bunch (see box, "Stocking up on Capital Gains," page 84). If ballooning sales, compounded at 132% annually for the composite of the INC. 100, are so inviting on paper, how's an unsuspecting investor to avoid the fall?

To begin with, open the prospective firm's prospectus for the most eye-opening portrait of a company the business world provides (for free, at that). In Vector Graphic's, for instance, attorneys fulfilling their oath of due diligence were obligated to state that "an action seeking dissolution of their marriage has been filed" by the company's founder and chief executive officer, and her spouse, the chairman of the board. For readers who bothered to dig that far, forewarned was forearmed: the couple was divorced shortly thereafter, and the husband started up a competing business, leaving Vector Graphic to the eventual mercy of bankruptcy court.

Alas, stockholders of several high rollers among the current crop—70 of which are less than four years old as public companies and surely have prospectuses hanging around—have met comparable fates. Time Energy Systems Inc. (#37), to pick on the list's worst-performing stock, with a loss of 78% for INC.'s 12-month holding period ending March 3, was ignominiously drummed out of the NASDAQ Over-the-Counter National Market system for failing to file financial statements. The second worst, ComputerCraft Inc. (#60), down 74%, had to restructure its debt, giving away stock-diluting warrants in the process.

Called red herrings in the old days because they threw unsuspecting investors off the trail of maladroit management, now preliminary prospectuses of initial public offerings are required by law to be as guileless as the newborn babes they bring to life. Unlike annual reports, in which footnotes, euphemisms, and the president's pep talk artfully hide financial sins, a prospectus must contain such explicit information as a detailed history of the company's founding, stock and loan transactions in the company by principals, appraisals of the competition, the existence of pending litigation, overhanging stock options, the number of shares being sold, and what the proceeds are being used for. Those aren't headlines from the *National Enquirer*, to be sure, but you can depend on even innocent-looking prospectuses—required to be available to the public for at least 90 days after the date of the offering—to give some hint of where the quicksand lies.

In the cold print of its prospectus this spring, for example, Microsoft Corp. kissed good-bye to $509,850 a departed officer "owed the company." And when the red herring of Vestron Inc. disclosed that a major shareholder was taking advantage of the stock offering to cash in an indiscreetly large portion of his holdings, investors greeted the proposed issue with disdain. So much so that the shareholder had to withdraw his plan to sell the shares, and the underwriter had to redraft the prospectus. The man in the street apparently has wised up since 1983, the year the screens fell out of a wide-open IPO window and all manner of equity-dressed creatures crawled through.

One tip-off to quality comes from scrutinizing a corporation's board of directors, nowadays a key to determining the integrity of an emerging company and the validity of its audits as a private enterprise. Is the board's background financially oriented? Do they have expertise in the business? Do they hold responsible positions elsewhere? More than one dentist has been shanghaied in the past to help steer a neighbor's business. Boards used to be rubber stamps for management, but today outside members play—or should play—an educated and actively responsible role, assuring that the business doesn't become too insular.

What's good for the goose ought to be good for the average investor. Most amateur players don't bother to hunt down extraterritorial information, even though they're surrounded by it. Trade publications, for example, discuss corporate developments in their own terms of news or personalities, but to a smart investor they are an inexpensive way to determine market trends, discover clever management, tune in on rumors, and unearth novel companies and products. Beyond that, attending industry conferences and shows in person can pay for itself in investments (and the entrance fee might be tax-deductible). For that matter, what business *is* your neighbor in? Maybe it's the next Xerox Corp.

Following the lead of compounding revenues alone, as one can tell from certain sectors of the INC. 100, such as the restaurant group, clearly is an adventure. Investors would have gotten mashed in 1 Potato 2 Inc. (#12), the list's third-biggest loser, with a 69% drop. Also an '83 IPO, SPUD has been in the top dozen of the INC. 100 for two straight years, thanks to having squandered the proceeds of its $12-a-share public flotation on no fewer than 93 company-run restaurants, each featuring the culinary delight of a baked potato. Sales were purchased via the influx of public capital onto a balance sheet that otherwise couldn't have supported a lemonade

STOCKING UP ON CAPITAL GAINS

"Investors" enjoyed the first bullish move for the INC. 100 since the speculative blow-off of 1983.

For the first time in three years, INC.'s annual academic exercise—buying $100 worth of stock in each of its hundred fast-growing corporations—has turned out happy. That is to say, *up.* The same $10,000 investment might have returned more with greater safety elsewhere, to be sure, but an 11% profit is nothing to be ashamed of. Particularly when the NASDAQ Industrials, the index that represents the average established industrial stock in the over-the-counter market in which no fewer than 91 of the INC. 100 were traded, outdid the latter only slightly for the same year to March 3. Ditto the index of the

INC. 100 MARKET PERFORMANCE

Company (symbol/exchange)	1986 rank	3/85	3/86	$100 worth
1. **Insituform of North America** (INSUA/O)	89	$4.13	$13.88	$336.36
2. **King World Productions** (KING/O)[1]	64	12.50	39.75	318.00
3. **Amgen** (AMGN/O)	58	5.50	15.00	272.73
4. **Consolidated Stores** (CNS/A)[2]	84	8.50	22.00	258.82
5. **V Band Systems** (VBAN/O)	22	10.75	26.75	248.84
6. **LyphoMed** (LMED/O)[3]	52	8.39	20.38	242.88
7. **Ashton-Tate** (TATE/O)	4	9.50	23.00	242.11
8. **Circadian** (CKDN/O)[4]	59	6.25	14.00	224.00
9. **Certified Collateral** (CARX/O)[5]	31	7.50	16.00	213.33
10. **Priam** (PRIA/O)	68	3.25	6.75	207.69
11. **Tender Loving Care** (I/O)	93	3.25	6.50	200.00
12. **Sterling Software** (SSW/A)	30	7.75	15.25	196.77
13. **Jacor Communications** (JCOR/O)	73	3.63	7.00	193.10
14. **FONAR** (FONRC/O)	82	4.88	9.38	192.31
15. **Centocor** (CNTO/O)	38	14.00	26.50	189.29
16. **Manufactured Homes** (MANH/O)[6]	99	7.88	13.75	174.60
17. **Compression Labs** (CLIX/O)	62	6.25	10.75	172.00
18. **Durakon Industries** (DRKN/O)[5]	78	8.83	15.13	171.23
19. **Simmons Airlines** (SIMM/O)[7]	46	7.60	13.00	171.05
20. **VLSI Technology** (VLSI/O)	9	10.25	17.25	168.29
21. **Solar Age Industries** (SAMCU/O)[8]	27	1.50	2.50	166.67
22. **Western-World Television** (WWTV/O)	56	1.38	2.25	163.64
23. **Integrated Genetics** (INGN/O)	21	4.13	6.75	163.64
24. **Caremark** (CMRK/O)	76	10.88	17.38	159.77
25. **United HealthCare** (UNIH/O)	49	8.75	13.88	158.57
26. **Biomet** (BMET/O)	71	17.00	25.00	147.06
27. **Archive** (ACHV/O)	26	6.25	9.00	144.00
28. **Datacopy** (DCPY/O)	77	4.88	7.00	143.59
29. **High Plains** (HIPC/O)	61	1.63	2.25	138.46
30. **Comp-U-Card Int'l** (CUCD/O)[9]	48	19.50	26.75	137.18
31. **Iomega** (IOMG/O)	5	12.88	17.50	135.92
32. **Electronic Tele-Comm.** (ETCIA/O)[10]	36	8.00	10.25	128.13
33. **Expeditors Int'l of Washington** (EXPD/O)	7	11.75	14.63	124.47
34. **Saratoga Standardbreds** (STGA/O)	32	2.38	2.88	121.05
35. **Fibronics International** (FBRX/O)[11]	28	11.00	13.25	120.45
36. **SIS** (SISB/O)	50	5.00	6.00	120.00
37. **Vitronics** (VITX/O)	44	3.75	4.50	120.00
38. **Forum Group** (FOUR/O)[12]	1	9.89	11.75	118.85
39. **Cade Industries** (CADE/O)	18	1.06	1.25	117.65
40. **U.S. Intec** (INTK/O)[13]	15	15.75	18.25	115.87
41. **Piezo Electric Prods.** (PEPI/O)	2	0.25	0.28	112.50
42. **3Com** (COMS/O)	13	9.88	10.88	110.13
43. **First Centennial** (FCLCA/O)[14]	45	2.80	3.00	107.14
44. **Jack Henry & Associates** (JKHY/O)[13]	97	6.75	7.00	103.70
45. **Convergent Technologies** (CVGT/O)	39	10.50	10.88	103.57
46. **Allegheny & Western Energy** (ALGH/O)	19	19.00	19.50	102.63
47. **Interand** (IRND/O)	92	14.50	14.75	101.72
48. **Brentwood Instruments** (BRWD/O)[4]	40	7.50	7.25	96.67
49. **Endevco** (ENDV/O)	16	7.63	7.25	95.08
50. **Ben & Jerry's Homemade** (BJIC/O)[15]	74	15.75	14.50	92.06
51. **ORS Automation** (ORSI/O)	35	$2.75	$2.50	$90.91
52. **The Yankee Cos.** (YNK/A)	95	6.88	6.13	89.09
53. **Ziyad** (ZIAD/O)	91	7.50	6.50	86.67
54. **Jet America Airlines** (JETA/A)	24	3.50	3.00	85.71
55. **ALC Communications** (ALCC/O)[16]	3	10.00	8.50	85.00
56. **American Businessphones** (ABPI/O)	6	8.50	7.00	82.35
57. **MBI Business Centers** (MBOX/O)	70	13.25	10.50	79.25
58. **Computer Telephone** (CPTLA/O)[17]	53	6.38	5.00	78.43
59. **Medical Care Int'l** (MEDC/O)	63	8.38	6.50	77.61
60. **Shanley Oil** (SOCM/O)	11	0.94	0.72	76.67
61. **Harvard Industries** (HAVA/O)[18]	72	15.17	11.50	75.82
62. **Medical Electronics** (MECA/O)	23	1.66	1.22	73.58
63. **Symbion** (SYMB/O)	43	4.00	2.81	70.31
64. **Artel Communications** (AXXX/O)	42	7.88	5.50	69.84
65. **Walker Telecommunications** (WTEL/O)	17	12.13	8.38	69.07
66. **Enzo Biochem** (ENZO/O)	100	20.00	13.75	68.75
67. **HealthAmerica** (HMO/N)	20	19.50	13.13	67.31
68. **DEST** (DEST / O)[4]	67	6.00	4.00	66.67
69. **Helm Resources** (H/A)	65	0.94	0.63	66.67
70. **Energy Oil** (ECI/A)	8	8.00	5.25	65.63
71. **American Healthcare Mgmt.** (AHI/A)	69	9.00	5.88	65.28
72. **Ciprico** (CPCI/O)[19]	55	10.00	6.50	65.00
73. **IDEA** (IDEA/O)	96	8.75	5.38	61.43
74. **Animed** (VETS/O)	80	12.13	7.38	60.82
75. **Buffton** (BUFF/O)[20]	33	7.50	4.50	60.00
76. **Apollo Computer** (APCI/O)	14	28.25	16.75	59.29
77. **Alexander Energy** (AEOK/O)	34	3.00	1.75	58.33
78. **Ungermann-Bass** (UNGR/O)	66	21.25	12.38	58.24
79. **Telebyte Technology** (TBTIU/O)	90	3.88	2.25	58.06
80. **Patient Technology** (PTI/A)	41	13.13	7.38	56.19
81. **Applied Circuit Technology** (ACRT/O)	94	2.13	1.19	55.88
82. **American Surgery Centers** (SRGY/O)	29	1.44	0.75	52.17
83. **Reid-Ashman** (REAS/O)	98	8.75	4.50	51.43
84. **Alta Energy** (ALTE/O)	85	0.50	0.25	50.00
85. **C. P. Rehab** (CRHB/O)	75	9.00	4.50	50.00
86. **Telco Systems** (TELC/O)	51	20.00	9.75	48.75
87. **StarTel** (STAS/O)	83	3.13	1.50	48.00
88. **Personal Diagnostics** (PERS/O)	57	7.13	3.38	47.37
89. **Equatorial Communications** (EQUA/O)	10	19.75	8.75	44.30
90. **Consul Restaurant** (CNSL/O)	87	5.50	2.38	43.18
91. **Fuddruckers** (FUDD/O)	25	11.13	4.63	41.57
92. **G. D. Ritzy's** (RITZ/O)	54	2.50	1.00	40.00
93. **Plains Resources** (PLNS/O)	88	1.88	0.75	40.00
94. **Thermal Profiles** (THPR/O)	79	12.75	4.75	37.25
95. **Avant-Garde Computing** (AVGA/O)	81	13.75	4.50	32.73
96. **New York Film Works** (NYFW/O)	47	0.06	0.02	32.00
97. **Action Packets** (APAK/O)	86	6.38	2.00	31.37
98. **1 Potato 2** (SPUD/O)	12	1.63	0.50	30.77
99. **ComputerCraft** (CRFT/O)	60	6.88	1.63	22.64
100. **Time Energy Systems** (TIME/O)	37	13.75	3.00	21.82

[1] 2:1 split, 7/85 [2] first public, 6/85; 2:1 split, 11/85 [3] 3:2 split, 4/85; 3:2 split, 11/85 [4] first public, 6/85 [5] 3:2 split, 2/86 [6] 2:1 split, 6/85 [7] 5:4 split, 8/85 [8] first public, 8/85 [9] 3:2 split, 3/85 [10] first public, 9/85 [11] 3:2 split, 6/85 [12] 10% stock dividend, 8/85 [13] first public, 11/85 [14] 5:4 split, 6/85 [15] first public, 10/85 [16] first price as merged entity, 12/85 [17] first public, 5/85 [18] 3:1 split, 4/86 [19] 11:10 split, 1/86 [20] recapitalized ⅕:1, 10/85

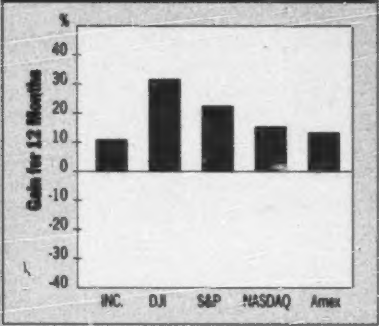
American Stock Exchange, which eight of the remaining INC. equities call home: the Amex, too, was barely into double digits for all the bullishness around. On the other hand, over on the New York Stock Exchange (where only one INC. stock is listed), the Dow Jones Industrial Average—the year's most closely watched figure next to *Sports Illustrated*'s swimsuit cover—soared a spectacular 31%.

INC.'s modest gain notwithstanding, this was not the Year of the Emerging Company. The bust following 1983's speculative blow-off (when our proprietary brood spurted 72%) pretty much took care of that. But is the economy nearly *thrice* as good for old-line smokestack industries than for a research-and-development-driven batch of newcomers? Come on, don't smaller companies benefit from disinflation and declining interest rates and lower energy costs as much as big ones?

RELATIVE MARKET PERFORMANCE

	3/1/85	3/3/86	% change
INC. 100	$ 100	$ 111	11
DJI	1,299	1,697	31
S&P 400	205	248	21
NASDAQ	311	357	15
Amex	228	257	13

INC. vs. POPULAR AVERAGES



Of course they do. But the equities of our thinly capitalized companies haven't been arbitrarily tickled by the programmed buying and selling that helped send popular indexes to records. If speculation hasn't been the order of the day since 1983, neither has the good old buy-'em-and-keep-'em style of common-stock investment. What *is* the order goes something like this: sell short a stock market futures index, and buy the stocks that underlie that index. To own, however briefly, the Standard & Poor's 400 takes a bit of cash, which leaves me and maybe you out. But it lets *in* the managers of billion-dollar institutional portfolios. Street watchers say that arbitraging by institutions, whose computers play the spread between index futures and the underlying equities for foolproof profits, can contribute to as much as 60% of a market move. One difference between the members of our motley crew and the Big Board's is that at least INC.'s depend on serious intent to send them on their way.

For better or worse, the list that sprouts from INC.'s annual foray into the public fast lane seems safe from computerized shenanigans. At least no commodity exchange is yet trading INC. market futures or options, nor is one apt to, inasmuch as INC.'s lineup is recast every year. To calculate how the 100 fared compared with other indexes, INC. first determines the market price that prevailed 12 months back for each issue (adjusted for stock splits and stock dividends), then invests a fictitious $100 in it at that price. The resultant number of paper shares are sold one year later.

What is remarkable about the present collection, given the Street's unremittingly bullish atmosphere, is its unremarkableness. Indeed, slightly more stocks declined than advanced (53 to 47), but the latter carried the day (as is statistically proper, since rising stocks have no ceiling, whereas declines can't exceed 100%). Of those that pulled more than their weight, two stocks tripled, and nine more than doubled—not bad, to be sure, but paltry compared with the 12 and 22, respectively, of 1983.

Nor did any industry group predominate, as did high technology three years ago. INC.'s best achiever was in *low* tech, you might say: up 236%, Insituform of North America Inc. (#89) licenses a patented pipe-lining process capable of fixing leaking underground systems without digging. Third-ranked Amgen (#58) leads the scattering of small biotech companies on this year's list, possibly foreshadowing the next hot technology arena, and fourth-place Consolidated Stores Corp. (#84) caps a generally strong year for retailing stocks.

But truly lower-technology King World Productions Inc. (#64), up 218%, owes its runner-up standing primarily to the visibility of "Wheel of Fortune," the popular television game show the company distributes. Gee, if you can do *that* well with random selections, maybe now is the time to market chances on next year's INC. 100. Or at least create a stock market index future from it.

stand. It won't be on the next list, though: despite revenue growth of 66% for fiscal 1985 alone, the eatery ran out of gas early in '86, tacked a "Q" onto its symbol (for an issue in bankruptcy), and passed into Chapter 11—a good illustration of how a plunge based solely on soaring revenues can wind up as a bath.

For Piezo Electric Products Inc. (#2), the dramatic surge in sales—from $3.5 million in '83 to $67 million in '84—was accomplished mainly through an acquisition for which it paid $11.1 million in cash and stock. Unfortunately, a quick glance at the terms of the deal would have revealed that the substantial additions to assets (from $35.3 million to $51.1 million) were more than offset by substantial additions to liabilities (from $864,000 to $26.7 million). In the face of the impressive 1,787% increase in the year's net sales, hapless stockholders of the merged entity suffered a 29% drop in shareholders' equity. And, worse, a drop in the price of the common from over $2 to two bits. This past March, the money-losing subsidiary was put up for sale and, having no takers, it filed for liquidation. Thanks, guys.

Even if conclusions from rising sales are elusive unless you read between the line items, one professional service that emphasizes revenue growth, Growth Stock Outlook Inc., boasts an enviable record of 11 straight up years and a compound return of nearly 20% a year. Its newsletter's scrutiny of revenues is engendered by editor Charles Allmon's open disdain of competitors that feature earnings growth alone. "Earnings *without* revenue growth only means companies are increasing margins," says Allmon, who demands that earnings expand along with sales. Because he requires a company history of at least 10 years, with the most recent 3 years showing revenue expansion, the newly emerging technology sector, object of many a fast-growth pitch, is suspect to Allmon. "High tech is high wreck," he sneers. "One bad quarter, and the stock falls out of bed." Large-capitalization stocks, with their millions of shares—"blue gyps"—fare little better in Allmon's estimation; due to the stranglehold that such institutions as pension funds have on big-company equities, he sticks mostly to OTC companies, preferably thinly capitalized "so the institutions can't get in."

In theory, institutions eschew the thin markets of such small-cap stocks because when they try to buy them, the price runs amok on the upside, and when it comes time to sell, the bottom falls out. But in practice, several large mutual funds have been willing to put up with illiquidity problems for the chance of a big hit among untapped equities with redoubling potential. And some companies—such as Ryan's Family Steak Houses Inc. (a 1983 INC. 100 fast-grower), which no fewer than four times in less than four years has wooed institutional interest by splitting its stock—enhance liquidity by increasing the number of available shares.

You need operating results to support repeated splits, of course, and Ryan's has had them right out of the pan. Starting with its cash-rich, debt-free balance sheet and internally financed working capital, Ryan's 1982 red herring smelled mighty like a red rose. One hint to the stock's blooming was the background of founder Alvin A. McCall Jr., described in the curriculum vitae of officers and directors that every prospectus contains. McCall, the minibiography indicated, had earlier been a principal in a chain of highly profitable steak houses that he later sold. With Ryan's, a careful reader could have concluded, he would be going through the proven process all over again. And the reasoning would have been sound: in less than four years, Ryan's stock gained over 1,500%.

Investors can garner such exceptional returns from many of the smaller-cap stocks of the OTC market, at least one mutual fund believes. Dealing exclusively in that arena, Fidelity OTC Portfolio last year gained 68.9%, the best performance for mutual fund portfolios in domestic equities, and more than double the NASDAQ OTC Composite Index's 31.4% increment. Its manager, Paul Stuka, doesn't attribute the fund's fast growth entirely to fast growth, however. "I'm not sure you *want* to invest in the fastest-growing companies," Stuka cautions the casual investor. "The names that tend to show up on [INC.-type] lists are often flash-in-the-pan, one-product companies. The danger is you pay a high multiple on earnings for the assumed growth rate, then you find out a few months later that the assumption was erroneous. Revenue growth by itself doesn't interest me. There better be a good reason why earnings didn't follow."

To amass that kind of record, a jaundiced eye helps. Stuka admits to viewing with skepticism companies whose revenues and earnings are rising precipitously. Like #19 on the 1983 INC. 100 and #58 in 1984, Crime Control Inc., which sold as high as 22¼ in the fall of 1983 and was hammered down to 1¼ despite a sales jump of 82% that year. "Their earnings were growing very quickly," Stuka recalls, "but if you looked at the statements carefully, they were going extremely cash-flow negative. They were recording long-term leases as sales up front, yet they kept borrowing more and more money." The reason was that revenue from the leases, although posted in its entirety as direct sales, actually was to be paid in over seven years. "A lot can happen in seven years," Stuka observes of the bookkeeping standard, and it did: in November 1984, its earnings growth arrested, Crime Control was barred from NASDAQ trading due to unreliable financial reporting.

If uncommonly swift revenue expansion is suspect, what statistical pace does Stuka feel more comfortable with? "I'm just as excited about a 10% grower, if I can get it at 6 times earnings, as a 30% grower at 18 times earnings. I like earnings, and I like cash flow—those are my two primary things. I'm probably the world's worst technician," one of the country's hottest fund managers admits, referring to the school of stock-pickers that disdains business fundamentals in favor of analyzing an issue's price movements in the marketplace. "I get advice along those lines, but I don't use it."

CHARLES ALLMON—GROWTH STOCK OUTLOOK INC.
"High tech is high wreck.
One bad quarter,
and the stock falls out of bed."

One of the country's hottest technicians, on the other hand, claims he doesn't use earnings, so there. "I do alpha and beta and things like that," says *OTC Insight* author Louis G. Navellier. Though arcane, perhaps, such statistical analysis must have something going for it: the advisory's nine model portfolios, each dealing exclusively in OTC equities, averaged a 66.3% gain last year, best among diversified-stocks selectors.

To title the process "insight," however, may be stretching things, since, to cast his alphas and betas, Navellier merely has to switch on his computer after the market closes. Then, like fish jumping into a net, the stocks do all the work, based mathematically on how their price action compares with the body of equities over a period of time. Why only the OTC? Navellier finds that the freewheeling stocks of small companies there are particularly responsive to his relative-strength formulas. In the end analysis, however, Navellier looses an intuitively roving eye on good-looking bottom lines. "Most of my companies are driven by tremendous earnings growth. More than revenues, I want those earnings to keep flying. That's our caveat—four quarters of earnings." Even then, Navellier concedes, "You are going to get slapped in the face by one stock or another."

Indeed, it might just be dumb luck that the stock-picking celebrities of '85 stumbled into one of the most vigorous bull markets in history. Not often can investors wait for four quarters of rising earnings to buy a stock, and *then* enjoy a straight ride to a 300% gain. As one seasoned adviser incredulously noted of a prominent competitor who this spring not only recommended a fully invested position in common stocks, but had his clients fully margined to boot, "He hasn't seen a bear market like 1973—yet."

Today's stars have ridden out the debacle of '83, however. And the small investor is the better for it, theorizes Gary Koenig, a veteran stockbroker now out of the public fire at the investment banking firm of Hambrecht & Quist. "The market is your friend," Koenig counsels. "It's a broad aggregate of institutions saying, 'I was burned so bad in '83, I don't want it.'" Today, he observes, "every deal has the scrutiny of the market going for it, which it didn't in '83."

To sell newly public companies to newly dubious customers, underwriters have been forced to discount the offering prices of even the most promising issues. The modest price-to-earnings ratios seen recently in new issues give investors time to do the necessary homework—in particular, to study a company's financial statements. If the balance sheet demonstrates staying power—a solid cash position, no

(continued on page 99)

PHOTOGRAPH BY RHODA BAER

more than 60 days' of inventories, positive cash flow with little borrowing, and no obfuscating footnotes—investors can pursue the common stock with some confidence. And if *that* set of managers doesn't know what to do with it, a clean balance sheet will be tempting to someone else who does, as the recent spate of acquisitions attests.

Indeed, clues that someone smarter, more diligent, or better placed than you has discovered rewarding investment opportunities can be found in such activity. When Eastman Kodak Co. acquired a small high-tech company early this year, for example, a bulb should have flashed back home: why is *Kodak* interested in that industry—is it going to move out of cameras? No, it is going *into* data storage. Undoubtedly, an internal merger-and-acquisition team studied possible subsidiary operations and determined that electronic data storage had profit potential—knowledgeable endorsement of the once-suspect industry. Since the purchase, stocks of several small data-storage companies have tripled.

PAUL STUKA—FIDELITY OTC PORTFOLIO
"I'm not sure you want to invest in the fastest-growing companies. They are often a flash in the pan."

One of the most accessible indications of the investment-worthiness of a going concern is stock trading in it by its officers and directors—insiders—which is reported to the SEC within four or five weeks and later appears in the financial press. Insider selling has many fathers, but there's only one reason why someone close to a company buys stock in that company in the open market: to make lots of money when the stock goes up. As, apparently, did Barris Industries Inc. insiders, who scoffed up about 1.4 million shares in one month earlier this year and rode them to an all-time high of over $21. But they were nowhere to be seen back in 1980, when Barris had compounded revenue at 75% a year for 1975 to 1979 and placed #32 on the INC. 100. The probable answer: management posted a whopping loss the next year despite continuing revenue growth that put the company on the 1981 INC. 100, and the stock got gonged but good.

Not all stock moves are presaged so starkly, of course. And, too, insiders can be as wrong as the rest of us. So, inevitably, an investor has to learn to detect subtleties and ask questions. Why are inventories up from the previous reporting period, for instance. Isn't the product selling? Are write-downs about to hit the books? Similarly, a sizable increase in cash and securities from the previous year is impressive at first glance, but ought to be suspect. Cash invested at 10% may seem to be contributing to net profit, when actually it is diluting the earnings of a business whose return on investment otherwise is 20%. Why isn't it being put to better use? Is there a big tax liability? Does management anticipate needing that much to fuel the operation because next year's income is in doubt? Has growth been carried as far as management can take it? If the officers really believe in themselves, why isn't the company treasury buying back its own stock?

Even large fund managers probe each opportunity on its own merits, primarily by scouting out management. Investors can ride the coattails of a hot fund simply by studying the fund's quarterly portfolio reports, noting the changes, and executing the same orders. For example, one of the country's most respected managers, obviously betting on a rate decline, could have been seen moving heavily into interest-sensitive equities over several recent quarters—a well-considered tip for the small investor, who had plenty of time to do likewise.

Individuals can do their own management spadework as well. They can get on the mailing lists of companies, and peruse quarterly and annual reports. Or, merely by checking out earnings comparisons in a daily paper, a small investor can come up with a list of growing situations. Then he or she is entitled to telephone management and make inquiries. Are the per-share earnings pure operating income? Was there nonrecurring revenue? The president himself might not get on the line, but someone will—or should. "People are frightened of calling up a company," Koenig has found, "yet it's accessible to everybody. That's how you build an edge." Indeed, most small and/or new companies feel that they are underappreciated and are itching to talk, but can't find someone willing to sit still and listen. Further, a would-be investor is entitled not only to phone, but, damn it, to get up and *visit* the company he or she is considering for investment.

"The individual has a tremendous advantage in the stock market—if he's willing to spend the time," says Koenig. "It amazes me to see a businessman take a flier on a stock, when he ought to be looking at it like it's his own business." Nor do individuals spend anywhere near the time they should interviewing their brokers. Among other criteria, a broker should at least be able to provide a history of profitable recommendations and should anticipate a customer's interests in matters of news and corporate developments.

However astute, no broker can be expected to be therapist to someone temperamentally unsuited to the rigors of buying and selling. Investing can be as demanding as marriage—which is exactly the problem. Stockholders often get entangled in disdainfully downtrending stocks whose affection they try to win by waiting it out. Then they can't accept failure, blaming it on the fallen stock rather than themselves. "The guy with the least amount of emotion is going to be the best performer," Koenig agrees. "How many times, instead of talking about their present positions, customers would ask me the price of stocks they already sold!"

A basic discipline of selling is to be able to forget you owned the stock, and not kick yourself if it goes up after you sell it. But if you have enough capital, there are yet more ways to skin the cat. For instance, market apocrypha has it that, recognizing his paranoic tendencies when it came to selling, one investor would always buy twice as much as he really wanted, then would sell half "so the stock would think I was out."

Of course, he could have given it to one of those mutual funds, instead. An increase of 68.9% a year isn't half bad. ☐

END

PHOTOGRAPH BY RICHARD HOWARD

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A SURVEY OF THE CHIEF EXECUTIVES OF THE INC. 500

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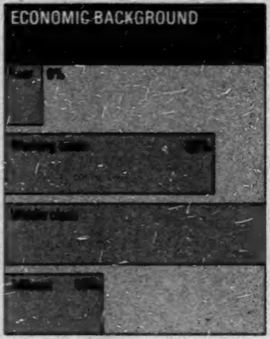
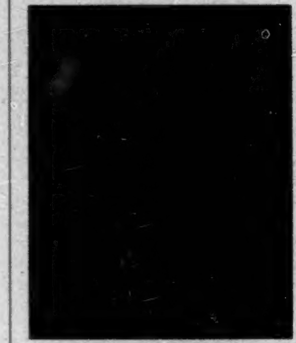


48: Main Street, Inc.
A close look at the CEOs of the INC. 500



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Jerry Ellis loves his shops just the way they are.

COVER
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This isn't just the Philadelphia story. Banks are "surging around the country seeking the profits of small and mid-market lending," says banking consultant David C. Cates. "But if you want to be in a field, you have to make it attractive for good people to work in it."

Which is just what many banks across the country are doing. It's happening at such mammoths as $215-billion Bank of America as well as at such growing regional banks as Fidelity and $6-billion Florida National Bank. In 1984, Florida National created a discrete small-business banking division offering salaries, titles, and management opportunities equal to those available in large corporate lending. The new division's portfolio shows 3,000 loans—up about 30% from this time last year—and accounts for more than $300 million of the bank's $3.8-billion total loan portfolio.

In 1982, Bank of America tried a similar experiment. Its mid-market ($5 million to $250 million in yearly sales) loan portfolio, worth $3.5 billion at the end of its first year, stands at about $5 billion today, moving from 4.7% to 6% of the bank's aggregate portfolio. So pleased is the California-based bank that it has recently created a fast-track career path for bankers—at present, 635 small-business loan officers—lending to companies with annual revenues of $5 million or more. Says Scott A. Kisting, senior vice-president in charge of corporate banking operations, "Everybody's going to be doing this." —*Nell Margolis*

TRADE WARS THROUGH THE AGES
PART 3

"(I)t would be better to buy beef produced by the King's subjects, dear though it is, both for the navy and for private individuals, than to buy it at a lower price from foreigners. The money that is spent on the former would remain in the kingdom and would enable His Majesty's poor subjects to pay their taxes, and thus it would return to the King's coffers, while the other [course] would mean money leaving the kingdom."
—Letter of Jean Baptiste Colbert, Louis XIV's ambassador in London, on July 1, 1669

SCORECARD

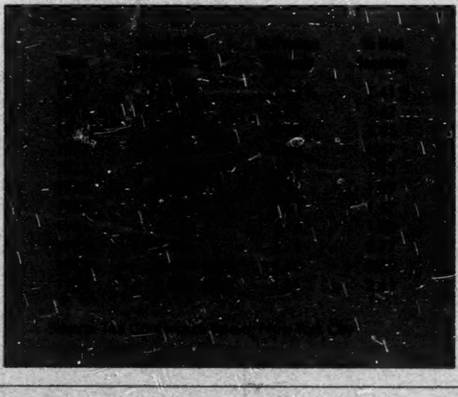
By Virginia Inman

SUITE CHARITY

Corporate giving earned a good report card in the first half of this decade. From 1979 to 1984, corporate contributions to charitable institutions jumped 65%, from $2.3 billion to $3.8 billion, outpacing inflation. Estimates put 1985 giving at 1984 levels. Since 1979, companies also significantly increased the percentage of profits they gave away, from 1.4% to 2.6% of net income on average.

But for many small companies, charity not only begins at home, it stays there. "The smaller a company is, the less likely it is to report any giving at all," says Hayden W. Smith, senior vice-president for research at the Council for Financial Aid to Education. His studies indicate that about a third of companies with less than $5 million in assets report contributions to the Internal Revenue Service, compared with over 90% of companies with assets of more than $1 billion.

But entrepreneurs who *do* give aren't stingy. "Of the companies that give, smaller ones tend to give a higher percentage [of pretax income] than larger companies," says Burt Knauft, executive vice-president of Independent Sector, an association of charities, foundations, and corporate donors. And, Smith notes, small closely held companies often give through the owner's personal account, rather than through the corporation. Here is the record of corporate giving from 1974 to 1984.



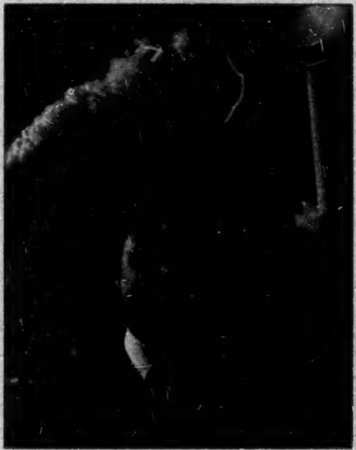
RATE CASE

Can Small Business Zap Utility Costs?

THE BILL HAD GONE DOWN TO defeat in Colorado every year since the mid-1970s. Lawmakers refused to establish an office to represent consumers in utility rate cases.

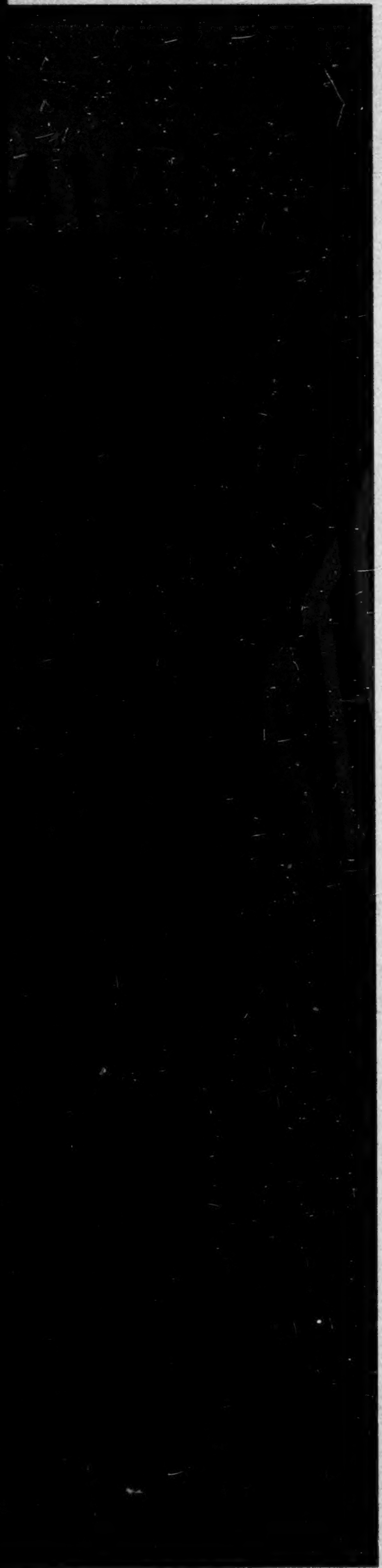
But in 1984, it happened. When Colorado Common Cause and other consumer groups were drumming up support, they made some unusual allies. The National Federation of Independent Business (NFIB) signed on by adding a mandate that the office represent small business, too. Partly because of that support, the bill passed. And one of the office's first acts was to appeal successfully for a cap on certain small-business electric rates.

Small business tends to bear the brunt of increases in utility rates. Large companies generally get a break because rate structures favor large users. Meanwhile, state consumer advocates have had some success looking out for the interests of homeowners.



PATRICIA BARRY LEVY

Jim Henderson, state director of Colorado NFIB, made an unusual pact with Colorado Common Cause.



MAIN STREET, INC.

Forget rebel, forget misfit, forget poor boy makes good. A new study shatters old myths about the entrepreneur.

BY CURTIS HARTMAN

THERE ARE THE WORKAHOLICS IN BLUE JEANS AND FLANNEL SHIRTS, STILL garage tinkerers at heart. There are the corporate mavericks, hand in hand with venture capitalists, looking to go public and make a quick score. You'll also find immigrants chasing the American dream, women and minorities, swashbucklers and techies.

In fact, if you look at the men and women who run the companies of the INC. 500, you can find almost anything you want. All the heroes of entrepreneurial myth are there—the rebels and the misfits enshrined in pop culture, the disadvantaged finally given a place in the sun. But, if you look for someone who typifies the group as a whole, you are more likely to find Henry Stickney.

Norman Rockwell could have painted the portrait. Stickney came from solid middle-class parents who owned a dairy store in suburban Cleveland. In school, Stickney was in the top third of his class, and played first base on the varsity baseball team. He worked weekends and after school at the dairy, and was the first in his family to graduate from college. He's white, Protestant, and Republican, a good family man, married and never divorced. And today he runs his fast-growing medical-specialty company on Business Center Drive in San Bernadino, Calif., with his wife and two sons pitching in.

During the past several months, INC. and *USA Today* have been looking at the men and women who, like Stickney, run the fastest-growing private companies in America, the INC. 500. For years they have been touted as the leaders of an entrepreneurial explosion in America but, until now, they had never been studied as a group. Our interest was less in finding out how they run their businesses than discovering who they are, where they came from, and what makes them tick.

On the pages that follow we will explore the overreaching need of these executives to control their own lives and the businesses they run. We'll look, too, at their marriage patterns and investment patterns, their politics and hobbies, what they risked to build their companies to national prominence, and what they gained. And we'll analyze the differences between company founders and nonfounders, between men and women, between West Coast executives and East.

But more striking than the differences are the similarities among these '80s entrepreneurs in background, style, and values. Forget rebel. Forget misfit. Forget poor boy makes good. As a group, these creators of the new economy come straight from the mainstream, upwardly mobile Anglo-Saxon inheritors of the traditional American dream. Eighty-five percent are married, 7 out of 10 to their first spouse. They have 1.4 children and take two weeks off each year. They play golf, vote Republican, and prefer *Time* to *Newsweek*.

Their values are Main Street as well. Asked to explain their success, most cite such

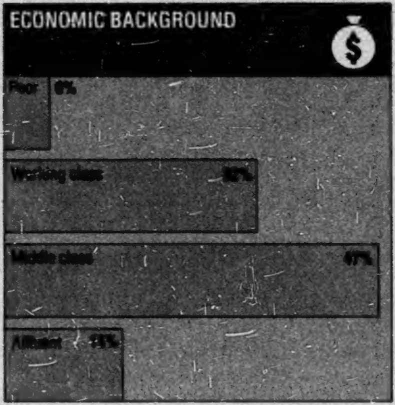
HENRY STICKNEY AND HIS FAMILY FIRM

The entrepreneurial elite is distinctly middle aged, middle class, and middle American.

bedrock virtues as hard work and persistence. They worship a Protestant God at church and self-reliance at the office. And to those entering business, their most frequent bit of advice is, "Do unto others as you would have them do unto you." Tom Duck Sr., of Tucson, seems to typify the attitude toward life and business: "I was raised in Sunday School, and my folks were God-fearing Protestants. I was an ardent Boy Scout. And my real values haven't changed. I always believed that you should be honest and hardworking and, some way, you would be blessed."

Only their success seems unconventional. The INC. 500 executives have not simply done better than their parents—they have done appreciably better, with a median income today around $100,000. Over the past decade, on average, they have bought houses valued at $750,000 and amassed a net worth of more than $4.7 million. And these days they're likely to drive down Main Street in a Cadillac or a Mercedes.

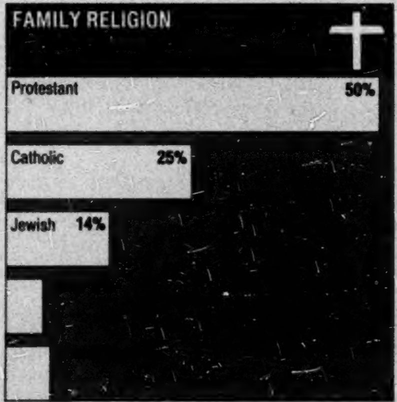
America's entrepreneurial revolution is thought to be profoundly democratic, bringing increasing numbers of women, minorities, and those with lower-class backgrounds into the economic mainstream. But you'd never know it from looking at the executives of the fast-growing companies of the INC. 500. "This really is a land of opportunity," says Paul Woodruff, CEO of Environmental Resources Management Inc., "for those of us fortunate enough to have the right parents."



The statistics seem to bear him out. Ninety-six percent of the INC. 500 CEOs are white, 96% are men, and 70% are at least third-generation Americans. They grew up in traditional middle-class households: dad, three or more kids, and a mom who stayed at home while they were growing up. Psychologists, no doubt, would find it relevant that a disproportionate number were first children.

Dads' collars were mostly white, not blue. They were salesmen (13%), businessmen (23%), or professionals (19%). But most important, they were entrepreneurially inclined: more than half the CEOs had parents who had started or run a small business at one time. And no doubt their children first learned about running a business while sitting around the kitchen table.

Henry Stickney traces his strengths as a manager back to his parents, a father "who can sell anything to anybody" and a mother "who can organize anyone to do anything." The family dairy store was hardly glamorous; even with the seven-day workweeks and everyone helping out, it eventually went under. But the father's values would become the son's model. "He wanted to do everything himself, even make his own ice cream and grind his own hamburger. He took that much pride in his work," Stickney remembers. "He had a lot of independence; I guess that's why I'm in business."

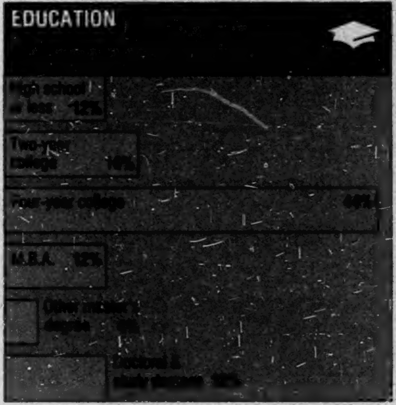


If you ask the CEOs what, if anything, they "excelled" at in high school, they'll most often say "getting in trouble." But to hear them reminisce about their exploits is to be reminded of a simpler America, when skipping school, staying out late, or smoking in the boys' room were the accepted forms of adolescent rebellion.

In fact, the INC. 500 CEOs were achievers early on. More than a quarter were honor students in high school, and nearly a third, like Stickney, ranked in the top third of the class. They were active in school government, clubs, and church activities, and a third played varsity sports.

Paper routes and yard work were the traditional ways to earn pocket cash on Main Street, but, like Tom Sawyer and his whitewashing, many of the future CEOs went significantly farther than that. Before they turned 21, 15% had a business with other employees, expenses, and profits. Darby McQuade, for example, cornered the local worm market in Richwood, W. Va., hiring his buddies to dig for bait he could sell at the beginning of fishing season. And John Cheney was into photography. He walked the streets of Houston snapping photographs of houses that he later developed, framed, and sold door-to-door. His enterprise grossed him several hundred dollars a week through high school.

Of course they went to college, studying science or engineering in the main, or business. A quarter eventually took some form of graduate degree, but only 12% hold an M.B.A.



Mostly, they got their business education on the job. Contrary to the suspicion in the corporate boardroom that the successful entrepreneur is a lucky, untutored novice, we found that the INC. 500 CEOs had an average of 10 years of professional experience before they started their own companies, learning "to make mistakes when somebody else is paying for them," as Thomas F. Richardson, now a manufacturer of school supplies, puts it. The majority worked in another start-up or small firm, and fully 45% put in a tour of duty with the *Fortune* 1,000.

With the experience under their belt, they struck out on their own—the median age was 33. The prospect of making lots of money was not critical in their decision, they now say. Most often they cite the chance to be their own boss, to control their own lives, and to prove to themselves and to others that they could do it. Even today, with all their wealth and success, 44% list the pressure to succeed as a major source of stress.

From the start, the business was very much a family affair. The majority had family members involved in the start-up—a wife, most likely, but also children, siblings, and parents. Most of the start-up capital came from their own savings, from mortgages taken on the house, from relatives and friends. And one out of five CEOs relied on his wife's paycheck to keep the family finances from floundering.

Now, a decade later, the business is booming, but the family is still involved. Wives, generally, have been promoted to vice-president, but the title does not precisely define their roles. Judson Beamsley's wife, for example, is now the vice-president for personnel but concerns herself with much more than that. "She has veto power, and has pretty much had it since the beginning," he says. "I worry about what we *could* do, and it's her job to worry about what we *can* do."

Here, too, Henry Stickney fits the mold. Although a little older than the norm, he started out in 1978 with $2,000 in savings, a

CHARTS BY NIGEL HOLMES

THE NONFOUNDING FATHERS

If you think it's tough to start a company, try taking over from somebody who has.

The people who start their own companies are the stuff of entrepreneurial mythology. But they do not tell the whole story of the INC. 500. How about men like John Castro, who came into an INC. 500 printing operation three years ago as the production manager under the wing of its heart-attack-prone founder, and is now president and a majority shareholder? Or Bill West, a former banker who bought an audiovisual-training firm with his brother? Or Jim McCleary, who was once a national sales manager with a competitor before buying AmeriData Systems Inc.?

"My daughter asked me the other day if I'm an entrepreneur," McCleary remembers. "I said I didn't think so. I'm not the kind of person who starts a business in the basement and eats ham-and-cheese sandwiches and waits until it begins to take off."

The lot of nonfounding CEOs is different. They are less likely to take home the big salary, and boast net worths only two-thirds that of founders. More important, a nonfounder doesn't really control the company he runs, with only 49% of the equity on average; the typical founder-CEO holds 67%.

STEVE NIEDORF

JIM McCLEARLY
No start-up in the basement for him

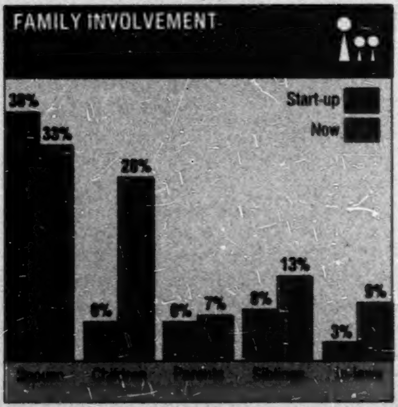
But shed no tears for the new guy in the corner office. When a new CEO comes in he is considerably less likely to have to lower his standard of living to keep the company alive. And he's less prone to complain about stress on the job or at home. He even goes to lunch more often rather than grabbing a sandwich at the desk.

What kind of person wants that kind of job? Here, at least, the clichés are true. He is twice as likely to have been born to affluent or wealthy parents as the founders. In college, he was more inclined to study liberal arts, less inclined to engineering. He is twice as likely to have earned an M.B.A. To our surprise, however, nonfounders are less likely to have put in a stint with the *Fortune* 1,000.

Executives who take over companies founded by somebody else face a host of problems upon arriving, but the most frequently cited was deciding what to do with the people already there. Soon after settling in at Merrill Corp., John Castro fired 7 of the 30 employees on what the survivors now laughingly call "Black Friday." "There was a lot of dead wood around," Castro recalls.

Bill West moved more cautiously. His somewhat straitlaced banking background did not prepare him for the stress on human relations he found at Resource Inc. "There was a lot of hugging, at least from my point of view," he remembers. Nonetheless, West watched employee performance through the company's busiest season before making his final decisions on who to keep and who to let go. "My brother and I had done a lot of financial analyses before we took the company over," West says, "but we hadn't spent much time on the people problems. You never realize what a cocoon you're in when you aren't running a company—because you don't have to deal with the hiring and firing and benefits."

wife to work the desk, a daughter to do the billing, and a son to make deliveries. Today Western Medical Specialty Corp. has 55 employees and $10 million in annual sales, with a projected growth next year of 40%. His wife now handles the company's public relations. And, like two-thirds of those surveyed, Stickney works with his kids in the business. Kenneth, the youngest son who recently received an M.B.A., is in charge of the company's new-product development. And son Doug, vice-president of sales and marketing, joined the business after graduating from UCLA.

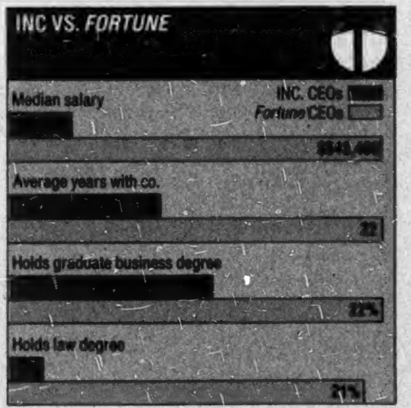


Like many companies on the INC. 500, Henry Stickney's firm defines a new type of family business in America. It is not the small business that might have been found on Sinclair Lewis's Main Street, the mom-and-pop operation of a simpler time. Its payroll is larger, its geographic reach is wider, and its owners are focused more aggressively on growth. But what our study has revealed is how firmly these entrepreneurs are rooted in their past. They have put to good use not only the economic and educational advantages they inherited, but the Main Street values as well. True to the American dream, they have done better than their parents. And God willing, they hope to see their children do better still.

INC. vs. FORTUNE

It's the money you notice most. The *Fortune* 1,000 CEOs made a lot more of it then than their small-company brethren. And that's without counting the stock options, the corporate jets, and the low-cost loans.

Maybe they deserve it, if only for their loyalty to the company, or the polished educational background. But so much else is the same. Mostly, these are two very similar groups of white men in suits. Although the *Fortune* 1,000 executives are about 10 years older, both groups are predominantly Protestant, still married to their first spouses, and vote Republican. They both take about three weeks off each year and put in a nearly 60-hour week at the office.



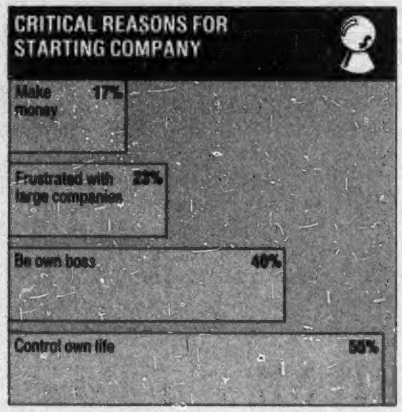
Still, those 60 hours feel different. Ask a *Fortune* 1,000 type how his role has changed over the past five years, and he'll mention "a growing interface with government" followed by "interaction with various external constituencies." For the INC. 500 CEOs, the biggest change has been the ease with which they can pay their bills.

WHAT DO THEY CRAVE? CONTROL

You can hardly blame them for feeling proprietary. Three out of four started the business themselves, and they've been at it for an average of almost 10 years. It's their money that provided most of the seed capital, and their net worth that is still at stake—typically, about $3 million is tied up in the company. There's a reason they call them *private* companies.

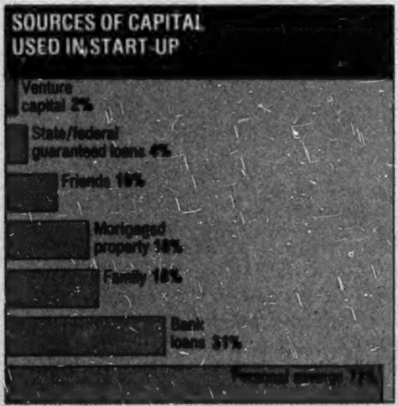
But the demands have changed as these private companies have grown, creating a tension for chief executive officers between wanting to build something of their own and wanting to build something that is bigger than themselves. It is one thing to work 65-hour week after 65-hour week during the start-up, trying, sometimes single-handedly, to turn an idea into a tangible operation. But the start-up is now ancient history for the executives of the INC. 500. The companies are well over the start-up hump, with average sales now in the $15-million range, and 126 names on the average payroll. Responsibilities are different now. And it's harder to keep control.

In the beginning, control was a fairly simple, albeit elusive, goal. The CEOs wanted "to call the shots, rather than having them shot at you," as Aaron N. Zohn of ZBR Publications Inc. puts it. Looking back, the founding CEOs remember the desire to make money as much less critical in their start-up decision than the desire for independence, freedom, and control.

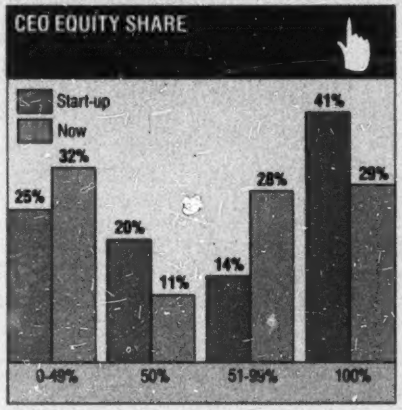


Judson H. Beamsley, for example, just got tired of being moved around. Three years at Montgomery Ward & Co., and six transfers. Two years at Speigel Inc., nine transfers. Starting Tek-Aids Industries Inc., a distributor of microcomputer products, was more than just a chance to cut down on his moving bills. It was a way for Beamsley to determine his own destiny for a change.

For others, control has meant having the chance to follow their own ideas with no one to stop them, and no one else to blame for failures. Craig M. Mascolo spent eight months in semiconductors at Motorola Inc. before the frustration drove him out to start his heavy-construction company. "You're never told your ideas are good or feasible or plausible," he remembers. "I like instant results, and they wanted me to put things into the system and let them digest." As he was preparing to launch his firm, Mascolo lived for six months on unemployment checks and his wife's modest salary, waiting to get his first break. "But at least it was my own choice," he says.



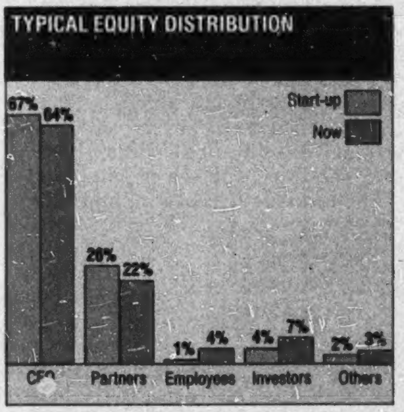
It is one thing to control your own ideas and time, however, and quite another to keep control when you create a business. But as a group, the INC. 500 CEOs did everything they could to keep power to themselves. They started modestly, 60% of them raising less than $10,000 in seed capital, most of it from personal savings. Only a handful of them used venture capital; the vast majority preferred taking on debt rather than giving away equity. The typical chief executive kept a majority position—and 41% owned the whole thing.



The need for control may help explain the ambivalence that these businesspeople have about partners. Over two-thirds started with a partner, most often one or two colleagues who together held a minority position. In 8 out of 10 cases, the partner is still involved in the business today. But few subjects elicited so much advice from the CEOs we surveyed, or provoked so many horror stories.

"If partners are required for financial or emotional reasons, choose very, very carefully, because a divorce in business is just as traumatic and expensive as a personal one," says James P. Gore of Avtec Industries Inc., in Fairfield, N.J. The problem is finding partners "that will complement and contribute," warns Donald L. Eberly of Qualimetrics Inc., in North Highlands, Calif. Others point out that partners may not share your passion, work habits, ethics, or management views.

Before he started manufacturing kitchen-ventilation equipment, Robert L. Luddy had been forced to dissolve a fiberglass company because of "bad blood" between him and a former partner. Luddy had run the business side, and his partner had been in charge of technology, and never the twain did meet. "He'd say, 'We need a bigger plant,' " Luddy remembers, "and it was hard to explain to him why that wasn't good for the business." Luddy has decided that working in tandem was no better than working for someone else. "If I have to be encumbered with a partner, then I'd rather not do it," he explains.



Edward J. Yohman started an electric equipment manufacturing firm with a group of "nine guys, all amateurs," and remembers the early years as a nightmare. With 10 equally loud voices to listen to, all representing a financial stake, there was a lot of squabbling and very little flexibility or responsiveness. Three dropped out of active involvement when the game got risky, then one of them "later decided to come back in when the going was good." Yohman eventually bought him out. But if Yohman ever starts another company, he'll insist that any partners sign a buyout contract to make the inevitable parting less painful.

Now that their companies are growing and relatively successful, CEOs no longer feel quite so indispensable as they once did: half say they have at least identified a potential replacement inside their organizations. They put in less time at the office—on average 54 hours per week—which is down an hour a year on average for each of the 10 they have been in business. And although they claim to take off 15 days each year on the average, for most it has been a year since they had a solid week away.

The challenge now is to learn to let go a bit, to share ideas and let others share in the responsibility. Although only 15% say they think it is "very likely" they will turn over day-to-day control of the company in the next year, half hope to be able to delegate more responsibility to their employees. But delegating, they say, proves easier to praise than practice, particularly when you're convinced you can do the job better yourself.

Donald B. Peschke of Woodsmith Publishing Co. has managed to let go of accounting and finance, but keeps his finger in everything else. "I want to be publisher and editor," he admits. "I still do all the writing and half the editing. I want to keep the marketing, too."

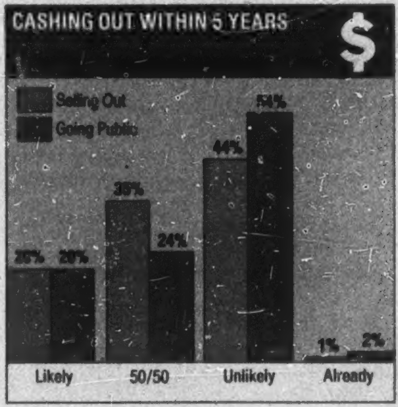
"When I think of changing, it gets down to what's going to cause me more grief, to make the change or keep the status quo," says Joe M. Thacker Jr., a jewelry manufacturer. For now, it's an easy choice, "but later, maybe, I'll feel more like stepping back."

Aaron Zohn warns of the dangers of waiting too long for later on. Zohn remembers how stifled he felt as a vice-president and minority stockholder in a graphic art and typesetting business years ago. Now that he is running his own company, he wonders how he can keep good people productive and content if he continues to make all the decisions. How can he keep them from going out and starting a company of their own, just as he did? "That is something I'm still trying to work out," he admits.

One answer favored by management experts is the sharing of equity with employees. But only 27% of the INC. 500 CEOs have given it a try. Herbert Antone, who runs a computer-service firm in Pleasanton, Calif., speaks for many when he talks of the fear of having employees peering over his shoulders all the time, thinking they have a say in how the business should be run. Adds Charles T. Stumpf, an insurance broker in Overland Park, Kans., "I took the original risk; it was all my capital. Besides, there are other ways to reward people besides giving them the store."

Most of the INC. 500 companies have been approached by potential buyers, but only the older chief executives believe it is likely that they will sell their businesses within the next five years. Even fewer will consider going public.

"The reporting requirements are onerous," explains Ted Snipes of Greenville, S.C., "and I don't want to run my company based on what I do this quarter." He has built his financial-planning firm to $36 million in sales by taking the long view, a perspective rarely favored on Wall Street. Publisher Peschke agrees: "A public company gets judged on the numbers. We'd rather have service as our goal, with profits to follow. That takes a long time to explain to investors."



Charles Stumpf is typical in how he approaches the questions of control, ownership, and succession. Like most, he's not convinced that anyone could run his business any better. "I'd love to have someone who could take over," he says. "And they might be able to continue the company. But how well? And for how long?

"Besides, I like holding all the strings."

THESE GUYS BET THE RANCH—AND WON

Just a handful of the INC. 500 CEOs admit they gamble for a hobby. Perhaps that's because they gamble for a living.

In our survey, nearly 8 out of 10 admit that they would have been severely damaged, or wiped out completely, if the businesses they'd started had gone under. Most had to face a reduced standard of living to keep the company alive, or miss a paycheck, or take no salary at all to keep things going.

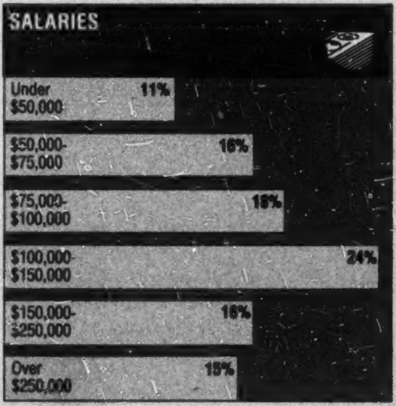
The gamble has now paid off, at least financially. Starting with an average initial capital investment of $34,000, they now take home solidly upper-class salaries, drive fancy cars, and have amassed an average net worth in the millions. The overwhelming majority say it is all much more than they could have ever hoped for from their previous jobs. And despite all the headaches along the way, 95% say that they'd do it all again.

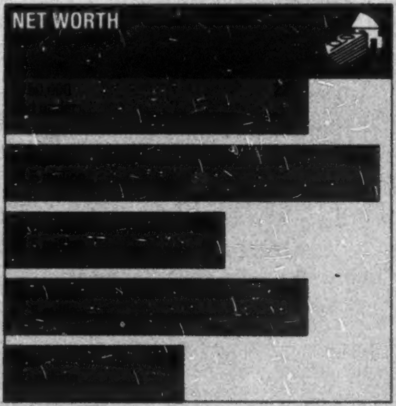
And what of the other 5%?

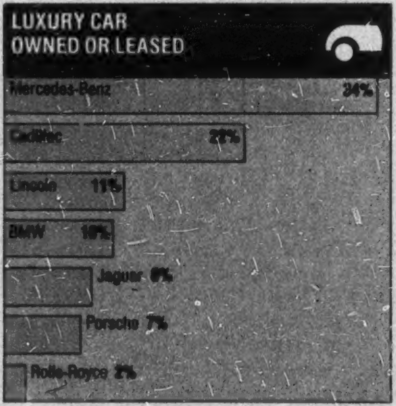
"The sacrifices may have been just too great," says Robert A. Satter. "I have been at this game for 15 years now, and for 15 years the light has remained at the end of the tunnel. Don't get me wrong, I love business. But there are limits. There can be too much of a good thing."

On the surface, The Satter Cos. looks to be a good thing, indeed. Over the past 15 years this West Point grad has taken $40,000 seed capital and tranformed it into a real estate development company with revenues of $84 million and profits of $1.3 million. Satter owns 68% of the stock.

"But if you ask me today, I'd have to say I'm just not sure if it's all been worth it," he admits. "Everywhere I look I see the signs of the sacrifices I've made—family, friends, personal interests. About the only sacrifices I haven't had to make have been financial ones."





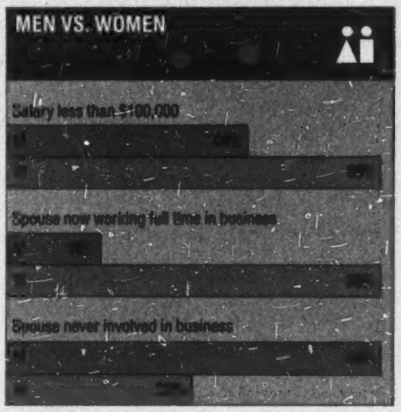


WOMEN: STILL LAGGING BEHIND

Start-ups by women may be spurring the entrepreneurial revolution, but so far, their firms have made them less rich and famous.

The most obvious thing to say about the women of the INC. 500 is that there aren't many of them: only 4% of the total. And if you are looking for other signs of exclusion in the survey data, they are here as well.

Nearly a third of the women said it was the lack of advancement at their old jobs that was an important component in the decision to strike out on their own—that's nearly double the rate for men. And to finance their start-ups, women were twice as likely to have relied on family money. Since the start-up, women have raised only $1 in outside capital for every $24 raised by men. And the net worth of these successful female executives is about a third that of their brethren. Salaries still lag far behind.



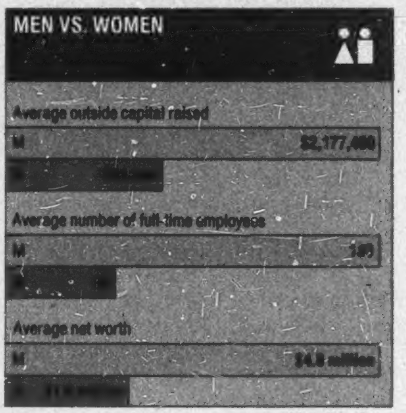
Ironically, it was the desire to make money more than the urge to be their own boss that most motivated these women to start their own businesses (the men had it the other way around). But once in control of their own firms, women are even more determined than men to keep the reins tight: they are less eager to delegate day-to-day responsibilities, less inclined to take the company public, and less likely to have a replacement in-house.

Women are decidedly more pessimistic about their companies' future, and more conservative about growth. Among the explanations, we were intrigued by the one from Edwina Muhawi, who runs a wholesale bakery in Clovis, Calif.:

"If the women-owned companies aren't raising as much outside capital or hiring as many employees, I bet it's because most of the married women in the survey probably have husbands who don't want their borrowing to jeopardize the financial picture of the family. I know I've got that problem."

Indeed, you can't help but notice how prominent a role husbands play in the fast-growing companies run by women. Fully 78% of the married women in the survey report their spouses have had some role in their companies over the years. For men, the figure is only 57%. No doubt all this working together generates a sense of shared achievement. It generates friction as well.

"We can't ever cook dinner together, much less work together on new products," says one women, "so we really have to be careful to keep the jobs separate." But Judith Kaplan of Ocala, Fla., a distributor of museum gift items who has included her husband in all three of her start-ups, disagrees. "I don't understand those people who say they can't be with their spouses day in, day out. What a terrible statement on the relationship! My husband and I don't segment. My business is part of both of us and of the relationship itself."



Women executives worry about the kids more, and how their work affects the family. "Regardless of how successful I am," insists Muhawi, "I know that if I'm not providing a nurturing atmosphere at home for two children, I won't be successful."

For those looking to debunk sexual stereotypes, meet Jean Radtke, an advertising executive in Elm Grove, Wis., who left home at 17 to play pool competitively. She now keeps her pool table in the living room, along with her 43 championship trophies.

ENTERPRISE IS BETTER THE FIRST TIME AROUND

If at first you don't succeed, you're probably not on the INC. 500.

It may take practice, practice, practice to get to Carnegie Hall, but the old adage does not seem to apply to business start-ups. Two out of every three founders of America's fastest-growing companies have hit the big time on the first try. Statistically speaking, these winners make it look easy. But don't be fooled: this is a survey that tilts toward winners.

There were some practiced start-up artists in our survey, however. The typical veteran had founded two other companies before the present one—one failure and one success. And a few veterans were downright prolific.

At the age of 26, Tom Duck Sr. of Tucson opened his own appliance store in Indianapolis, down the street from his old employer, Sears Roebuck & Co.

JON WOLF

TOM DUCK SR.
An exception to the rule, he struck it rich on #12.

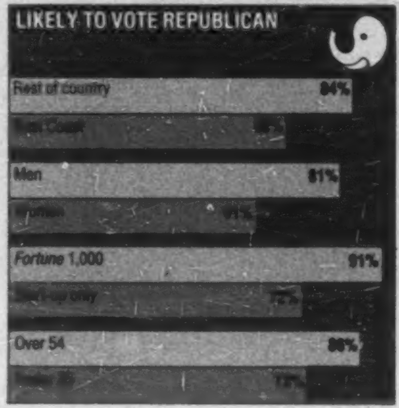
"I was buying my stoves from the same place that Sears was—but I was giving better prices," remembers Duck. After that venture it was toys and garish paintings, several types of insurance, auto-seat repairs, and a family motor coach association—none of them failures but none a spectacular success, either. Now, at 72 and on his thirteenth company, Duck finally seems to have made a score: a chain of 500 low-cost car-rental franchises, run mostly out of used-car dealerships in 41 states and Canada. "The whole thing is very inspiring and awesome," he says of his latest endeavor.

Actually, Duck was only number two in our survey in the category of most start-up experience. Richard S. Thorp, a retailer and distributor of electronics equipment, in Kent, Wash., claims that he has started 24 businesses during his career. We never found out from Thorp how he did it and how many of those companies have survived. Not surprisingly, he is too busy to chat.

GOOD NEWS FOR REAGAN AND THE GOP

For some years now, Democratic strategists in Washington have been trying to figure out how they might make the entrepreneurial issue their own. Based on our survey, we have some advice for them: forget it.

More than half our CEOs can't ever remember voting for a Democratic Presidential candidate—not peanut farmer Jimmy Carter, not Johnson in the '64 landslide, not even Franklin D. Roosevelt. And some of those who have voted Democratic later came to regret it.



"Yeah, I voted for FDR in the '40 election," admits Tom Duck Sr., the Tucson rent-a-car king. "But I honestly feel that he would have kept that war going if it killed him, because the war kept him in office. And the New Deal? That was just phony. Those projects had no long-range economic value."

Eight out of 10 INC. 500 executives are now solidly in the Reagan camp, but there are a few soft spots. The President and his party suffer a gender gap in our survey of around 20%. And, contrary to all the post-election hoopla about younger voters flocking to the GOP, the youngest of our executives lagged 20 points behind the oldest in supporting the President. Geographically, East Coast respondents were decidedly less conservative and less Republican than their brethren across the country.

CEOs with *Fortune* 1,000 experience, we discovered, were more virulent in their conservatism than the others. And non-founders described themselves as being to the right of founders. But most surprising to us was that those who came from poor backgrounds were no more inclined to support social welfare programs than those from comfortable backgrounds.

"I've gone through plenty of tough times, and I've found that the only one who is going to help me out of them is me," explains Roger Orton of Sacramento, whose father, a laborer, kicked him out of the house at the age of nine. "I don't believe in giveaway programs, and people who rely on them, in my opinion, are worthless."

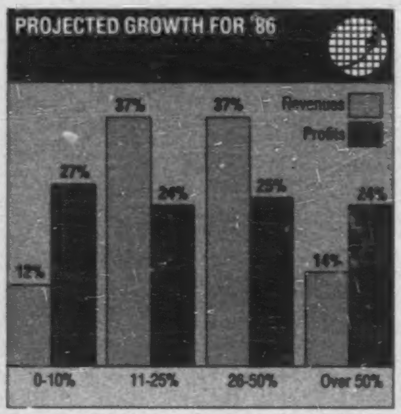
Charles R. McDonald of Willoughby, Ohio, remembers his machinist father as a "good Roosevelt man." But now he votes for "what is best for me and my business. . . . All these socialized programs—that's just the members of Congress buying votes."

An almost palpable disgust with welfare and "handouts" seems to motivate and energize the conservative political values of the men and women in our survey. The unfettered marketplace seems to them not just efficient, but fair. As they see it, they are living proof of how it's possible to make good without any government assistance. Or almost none. Like Orton and McDonald, about 40% of our sample took a degree from a government-subsidized state college or university.

WHAT—ME WORRY?

It isn't the competition that keeps them up nights. For all the talk about the rigors of the marketplace, the INC. 500 CEOs ranked their rivals as merely fourth on their lists of worries—after business finance, time commitments, and the pressure to succeed. The reason is probably because they don't have much competition: they've found a niche that allows them to define their own market.

Here are executives who measure the health of their business by its profitability—things like revenue growth, productivity, and market share are secondary. And on the matter of profits, they are decidedly bullish. The typical executive is forecasting a whopping 35% growth in profits next year on a similar growth in revenues. And employment will climb as well, with the average company planning to add 17 new names to the 126 already on the payroll.



But David Duffield, who runs a software company in Walnut Creek, Calif., warns his colleagues against too much optimism. "It's when you start thinking you're invincible that you get into trouble," he says. "Just because you make a million dollars in your first five years of business doesn't mean you are going to make another million in the next five.

"I'm not real humble," Duffield admits. "But I try to be."

ARE THINGS REALLY DIFFERENT ON THE COAST?

No sign of a letup in East-West tensions

While we're shooting down myths, let's take a look at the "two-tier theory," which holds that entrepreneurs on the East and West Coasts are more professional than entrepreneurs in the heartland: they hold more advanced business degrees, depend more on venture capital, and have more start-up experience.

You couldn't prove it by the INC. 500 survey. No matter where they live, only one in eight CEOs has an M.B.A. About 2% have venture capital—east, west, and middle. And the average number of earlier start-ups is fairly uniform across the country.

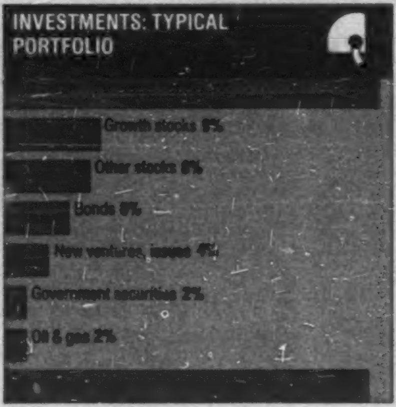
In the category of geographical distinctions, we found more of a clash between the two coasts. East Coast businesses are bigger, on average, 158 employees to 92. They've been fueled far more by capital: $3.8 million compared with $744,000. The East Coast CEO is more likely to have worked for a *Fortune* 1,000 company. He's already assembled a net worth of $6.5 million, compared with $3.7 million for the westerners. He's twice as likely to be Jewish, 40% more likely to call himself somewhat liberal, and 70% more likely to vote Democratic. And he's slightly more inclined to head for the Wall Street equity markets in the next five years.

"Aah," the Californian might reply, "but who has the better life? We're twice as likely to dress casually at the office. We complain less about stress, and feel healthier, too. We drive more than half again as many Mercedes. And we're three times as likely to sell businesses entirely."

AS INVESTORS, THEY LIKE TO GAMBLE

If the managers of INC. 500 companies are unconventional in any way, it is in their portfolios.

"A very aggressive posture," is how investment adviser Gary M. Goldberg describes the investment patterns that emerged from our study. What he means is risky. Cable TV systems. Aircraft. Fine cars. Metals futures. Even fast-food franchises. These are people who know that the way to make big money is not by clipping coupons and following the Dow Jones Industrials. But in the process, some of them have learned how to lose big money as well.



Take Len Wallace of Camarillo, Calif., for example. At one time, he had as much as 30% of his net worth in oil-drilling deals that came his way through a respected brokerage firm. At first he'd get reports saying how wonderful everything was going, but soon these gave way to reports of cost overruns, then dry wells, then rigs that were shut down. Now he is heading up a group that is suing the brokerage firm to recover the $750,000 he lost.

The INC. 500 CEOs had a median net worth of $4.7 million, nearly two-thirds of it tied up in their own businesses. Another 16% is in houses. That still leaves 22%—or about $1 million—to play around with. And play they do. The average portfolio sets aside 4% for new stock issues and another 10% for growth stocks of one kind or another. And more than a quarter of the CEOs report making substantial investments in new ventures.

Jack Dean of Erie Creative Coatings Inc., in North East, Pa., has 70% of his net worth tied up in new companies, among them an industrial park. "None of them made me rich, but that's the way I make my living," explains Dean, who claims to have had $200,000 stolen from him once by a shady partner. He now prefers new ventures in which he can take an active part.

James L. Earl of Tazewell, Va., says he has never lost more than $100,000 in any one of the nine new companies he's backed, most of them related to coal mining and steel. Earl says he puts 80% of his net worth into companies like these because the potential return is higher. "I'm a gambler," he concedes.

Adviser Goldberg was surprised that, with so much money wrapped up in their own firms, the investment strategies of INC. 500 CEOs aren't more conservative. He'd recommend more bonds or real estate. But John D. Chaney sees it another way:

"Once you've been tried by fire—where if the business fails everything goes—then a growth stock doesn't look all that risky. Besides, once you have that base of wealth, you're willing to take a chance."

"DON'T START YOUR BUSINESS WITHOUT IT"

Using credit cards as seed capital

LEWIS GOULD

"Credit cards are the best thing since God made rich and gullible aunts."

Book royalties and mustering-out money. New home loans, pension funds, insurance policies, and tax refunds. The INC. 500 CEOs have shown some innovation when it comes to finding seed capital.

But now we've found a new wrinkle: entrepreneurs who finance with credit cards.

"I always thought I was the only one," said Lew Gould, a manufacturer of ceramic-tile tools in West Nyack, N.Y., when we called him about plastic financing. "Back then, there was no cash flow here, so I used cards to finance office supplies, typewriters, non-capital goods of all kinds, in addition to using it for travel and entertainment. It's the best thing to happen to seed capital since God made rich and gullible aunts."

Or take H. Bruce Sauls. While other kids collected baseball cards, Sauls had collected bank cards from the age of 12. Then, when he was 26 and ready to start his furniture company, "I just walked into a local bank, plunked down half a dozen cards on the counter, and told the teller to give me the maximum cash allowance. It came to about $3,700, just enough to cover the bad check I had written to a supplier several days before."

A spokeswoman for American Express said she has heard it all before. "There is no official policy" about start-up financing, she explained—only that "everyone has to pay his bill within 30 days."

HOW THE SURVEY WAS CONDUCTED

In the world of growing, privately held businesses, the INC. 500 define the elite. These are companies that have sustained unusually high rates of growth over a five-year period, starting with sales of $100,000 to $25 million. Our purpose was to discover what is distinctive about the CEOs who founded them and run them.

The study was undertaken jointly by INC. and *USA Today*, with the assistance of Gordon S. Black Corp., in Rochester, N.Y.—a marketing research firm that is itself an INC. 500 company. In February, an eight-page questionnaire was mailed to the CEOs of the 1,322 companies that have appeared on the INC. 500 list since it was first published five years ago. The response rate was an extraordinary 46%, providing a sample of 604. After the results of the survey were compiled, our reporters and researchers followed up with phone calls to many of those who responded.

Assistance for this study was provided by Gordon S. Black, David H. Clemm, and Debra Hutchinson in Rochester; Tony Casale of *USA Today;* INC. staff members Sara Baer-Sinnott, Ellen Wojahn, Karen Angeline, Lisa Sheeran, Hope Tompkins; and INC. interns Bonnie Barber, Debra Rosenberg, and Lilia Wiener.

NOTE

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Growth Strategies Acquisitions Sales and Marketing

WHY THERE AREN'T MORE WOMEN IN THIS MAGAZINE

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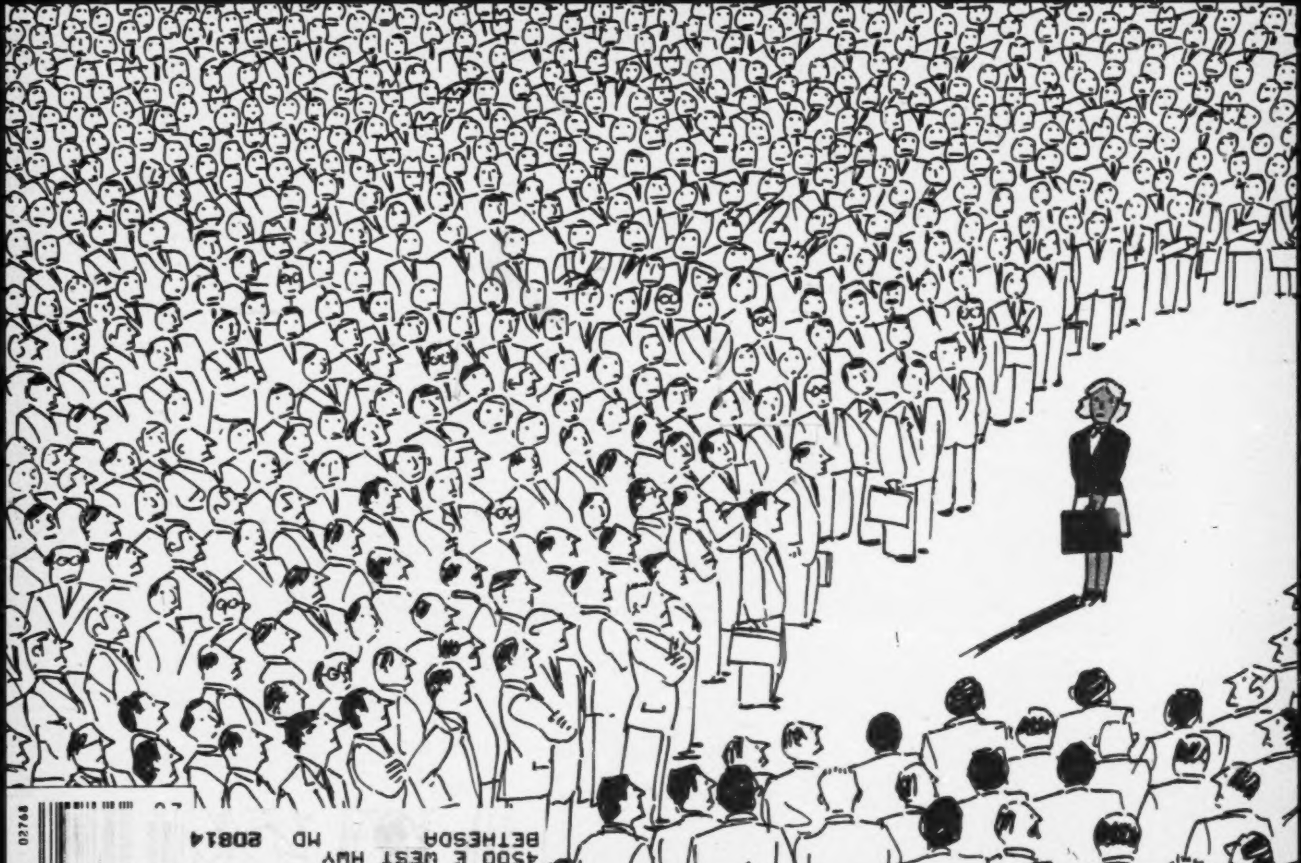

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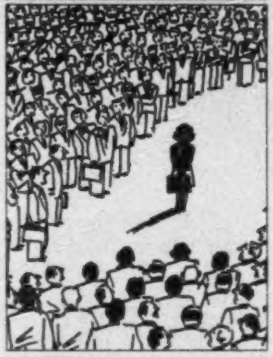

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by
Guy Billout

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sion guidelines that impose liability without regard to whether the employer knew what was going on. "The issue is whether companies are strictly liable for the acts of their supervisors," says Brian Hembacher, directing attorney of Los Angeles's Department of Fair Employment & Housing.

The outcome of Vinson's battle could change the way businesses manage their employees. Small companies, many of which don't even have formal policies, may have to become aggressive in telling employees about corporate policy and in opening up grievance procedures. Some may begin inquiring about personal lives. "Companies could be put in the position of having to be absolute insurers of their employees' behavior," says Stephen Bokat, vice-president of the National Chamber Litigation Center. "They may even want to prohibit any kind of sexual behavior between employees, which will raise questions about invasion of privacy."

—Joshua Hyatt

As a pharmacist, he had plenty of medications to soothe his son's hacking cough. But there was a rub: none offered croup therapy specifically for infants. So he mixed his own salve, adding an untried, minty Japanese drug called menthol. When the ointment worked, he sold his Greensboro, N.C., drugstore and started a company. Total sales were a sickly $433 during 1905, his first year. It wasn't until the Spanish influenza epidemic of 1918 that Lunsford Richardson's ointment caught on. Vicks VapoRub brought in $1 million in sales in 1918. And Richardson-Vicks Inc. was on its way to becoming a billion-dollar drug company.

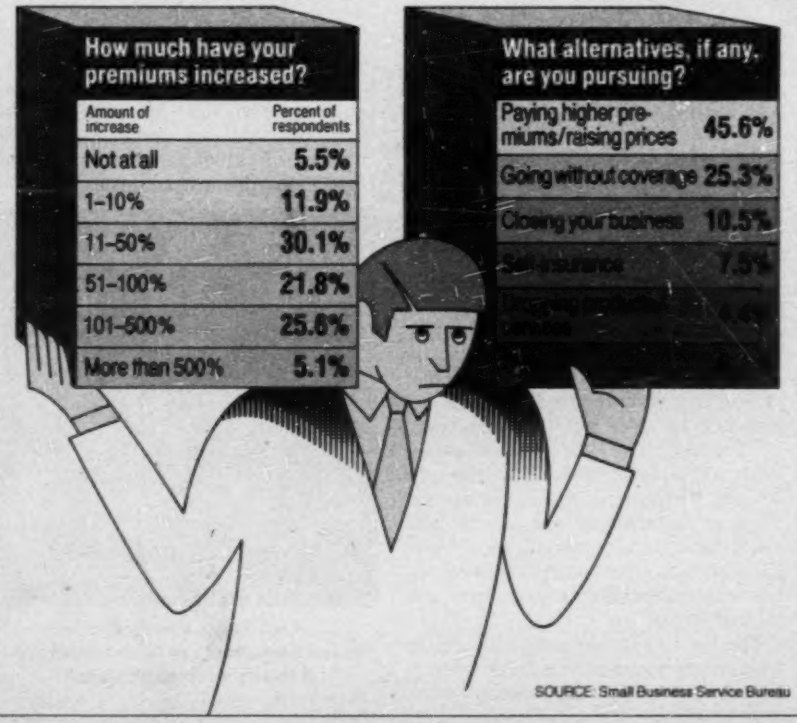
SCORECARD

INSURANCE OPTIONS

Small businesses have several unpalatable options when it comes to soaring rates for liability insurance. One out of three companies is going without insurance, according to a survey by the Small Business Service Bureau Inc. (SBSB) of its 35,000 members, which are mostly companies with less than $3 million in annual sales. More than 10% are closing their doors, although insurance problems for many of these companies may simply be the last straw or a convenient excuse.

Half the respondents reported a premium rate hike between 50% and 500%. But it's not because of a bad record: 85% say they've never had a claim filed against them. Below are selected SBSB survey findings.

—Leslie Boltax Aizenman



How much have your premiums increased?

Amount of increase	Percent of respondents
Not at all	5.5%
1-10%	11.9%
11-50%	30.1%
51-100%	21.8%
101-500%	25.6%
More than 500%	5.1%

What alternatives, if any, are you pursuing?

Paying higher premiums/raising prices	45.6%
Going without coverage	25.3%
Closing your business	10.5%
Self-insurance	7.5%
[illegible]	[illegible]

SOURCE: Small Business Service Bureau

NIGEL HOLMES

ONLY IN AMERICA

Great Moments In Corporate Work Rules

—From an Associated Press dispatch

A MAN HAS BEEN DISMISSED AFTER leaving his maintenance job to respond to an emergency call to help two victims of heart attack.

"When you're talking about a heart attack victim, you have four to six minutes to respond," said the maintenance worker, Collin Swift, who is 43 years old. "I knew what I had to do."

Mr. Swift, who is a volunteer emergency medical technician, is challenging the dismissal through a union grievance procedure.

He received an urgent call from an ambulance service Feb. 21 while he was working at the Pine River Baker Industries-Durkee plant. He was told that an elderly couple were having simultaneous heart attacks. . . . When he left his job at 11:20, he said he did not tell a company supervisor or get a written slip acknowledging his sudden departure, as company rules require. . . . [Said Swift]: "I thought someone's life was worth more than going through the ritual of hunting up a supervisor." . . . Both the heart attack victims survived.

AMBULAN
LINE

Dismissed worker Collin Swift

"I thought someone's life was worth more . . . than finding a supervisor."

Mr. Swift signed a return-to-work form at 1 p.m. that day. Three days later he was dismissed from the job he had held nearly 18 years.

Bill Waller, industrial relations manager for Sunoco, which owns the Pine River plant, said in a statement: . . . "We do want to make it clear that our corporate and local practices are to encourage employees to be involved in civic activities. In fact, many of our employees are able to engage in such volunteer services and still abide by the plant rules that have been established."

INSIDER (continued)

MCI's Bill McGowan on the Changing Role of a Chief Executive

Professional Services: Creating a Company, Not Just a Job

THE MAGAZINE FOR
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THE TURNAROUND

How a Dying Division of International Harvester Became One of America's Most Competitive Small Companies

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Steven Pumphrey

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BLUE HIGHWAYS

Crumbling America Will Draw Rebuilding Funds

AMERICA'S ROADS ARE CRUMBLING. More than 40% of its bridges need repair or improvement. Many regions will soon face water shortages. All of which is great news for companies large and small.

The country's neglected infrastructure—public works in old-fashioned parlance—may soon provide a huge market for companies that do engineering studies, repair roads, or build water systems and power plants. "What will be moving these markets forward is the real economic penalty the economy in general pays for neglect of these systems," says Richard F. Rossi, a Merrill Lynch analyst.

Within a decade, he predicts, public-works expenditures will rise from around 2% of the gross national product to about 4%, the level in 1965. Rossi estimates total spending will be at least $1 trillion over the next 10 years. The government reports that bridges and roads alone will need $720 billion in repairs by the year 2000.

Highways will get the first attention. Taking advantage of falling gasoline prices, about 20 states are considering gasoline-tax hikes to fund highway projects. One now under way and paid for mostly with federal money is a three-year, $175-million rehabilitation of Philadelphia's Schuylkill Expressway. Five contractors and more than 100 subcontractors are repairing 17 miles of highway, including 50-odd bridges. The project is estimated to create 4,600 on- and off-site construction jobs and 5,800 new jobs at local stores and other businesses.

Further off but probably larger in scope will be work on water and sewage systems. Rossi estimates that annual spending will rise from about $15 billion today to $30 billion or $40 billion by 2000. —*V.I.P.*

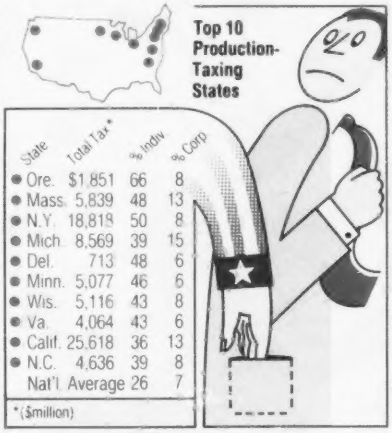
FPG/DEZOTELL

SCORECARD

TAXING MATTERS

IF YOUR STATE WANTED TO RAISE revenue, where would it hit you—at the cash register or in personal and corporate income taxes?

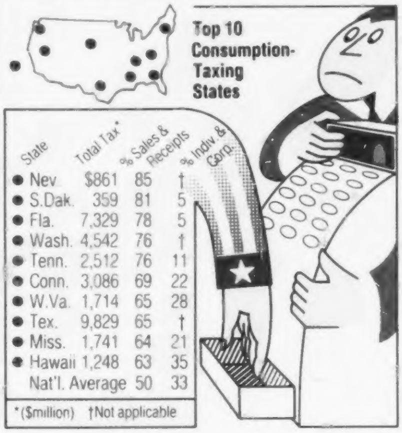
States tend to fall into two camps: those that tax consumption through sales and excise taxes and those that tax production through corporate and personal income taxes. Where a state chooses to raise its revenue depends somewhat on its economic structure. States with strong industrial bases tend to tax income, while tourist havens such as Hawaii, Nevada, and Florida fill their coffers by taxing purchases. Here are the top 10 states in each category, based on 1984 U.S. Census Bureau figures. —*V.I.P.*



Top 10 Production-Taxing States

State	Total Tax*	% Indiv	% Corp
● Ore.	$1,851	66	8
● Mass.	5,839	48	13
● N.Y.	18,818	50	8
● Mich.	8,569	39	15
● Del.	713	48	6
● Minn.	5,077	46	6
● Wis.	5,116	43	8
● Va.	4,064	43	6
● Calif.	25,618	36	13
● N.C.	4,636	39	8
Nat'l. Average		26	7

*($million)



Top 10 Consumption-Taxing States

State	Total Tax*	% Sales & Receipts	% Indiv. & Corp.
● Nev.	$861	85	†
● S.Dak.	359	81	5
● Fla.	7,329	78	5
● Wash.	4,542	76	†
● Tenn.	2,512	76	11
● Conn.	3,086	69	22
● W.Va.	1,714	65	28
● Tex.	9,829	65	†
● Miss.	1,741	64	21
● Hawaii	1,248	63	35
Nat'l. Average		50	33

*($million) †Not applicable

NIGEL HOLMES

WHEEL OF MISFORTUNE

Japanese Carmakers Tow Suppliers Behind Them

TOPY CORP. ISN'T QUITE REINVENTING wheels, but it is making them differently. About five months ago, the Japanese-owned company began making steel wheels in Kentucky, midway between Nissan and Honda's U.S. operations. "Topy was supplying them in Japan," says James Burch, industrial relations manager. "When the carmakers moved, we moved with them."

In the next three years, at least 40 Japanese parts makers will park new plants in the Rustbelt. They are tailgating the major Japanese automakers, which will be able to assemble over 1.5 million cars here annually by 1990. Carmakers are close to their suppliers in Japan, so the transplants are assured of contracts. "They are guaranteed a certain volume, so they can come here with less risk," says James Mateyka, a vice-president of Booz, Allen & Hamilton Inc.

The flood of foreign suppliers means an even greater drought for roughly 8,000 domestic companies, who are already hurting because of imports. Many suppliers fear that they won't be able to compete with their new rivals' more advanced factories, which can turn out quality parts at low prices. In response, some big suppliers are even forming partnerships with Japanese competitors. Sheller-Globe Corp. and PPG Industries Inc. are building state-of-the-art factories with Japanese partners. Warner-Ishi Corp., a joint venture between Borg-Warner Corp. and Ishikawajima-Harima Heavy Industries Co., recently won a contract to make turbochargers here for Ford Motor Co.

But few small suppliers have the know-how to attract partners. "If you're a small, regional supplier with no connection to Japan, this is really going to hurt you," says Jim Clyde, manager of business development at Garrett Automotive Products Cos., another of Ford's turbocharger suppliers.

KENNETH HAYDEN

Japanese suppliers aren't going to be satisfied with their traditional lot, either. Some will start selling replacement parts for the many aging Japanese cars here. Others are making overtures to the Big Three. "Any of the automotive companies are our potential customers," states Burch. "We have the capacity for plenty more." —*Joshua Hyatt*

INSIDER (continued)

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THE TAKE AT THE TOP

INC.'S ANNUAL COMPENSATION SURVEY

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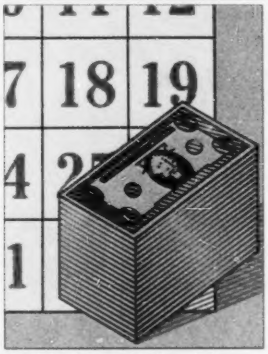

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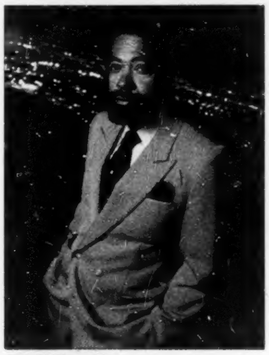

81 Blacks
Why blacks aren't starting businesses

COVER ILLUSTRATIONS
by
Nigel Holmes

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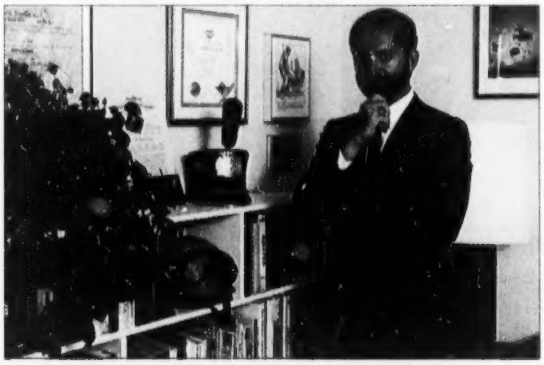
OFFICERS AND GENTLEMEN

Venture Money Flows Into Defense Start-ups

VENTURE CAPITALISTS USED to approach defense-related deals with all the enthusiasm a recruit musters for reveille on Parris Island. They didn't want to fool around with security clearances, and they weren't well connected with the defense world. "Venture capital funds didn't even look at companies doing business with the Defense Department," says C. W. Harvey, a special partner in New Enterprise Associates (NEA).



ED YOUNG

American Advance Ventures partner Phil Gioia
New companies capitalize on Reagan arms buildup.

That's not true anymore. With their computer investments faltering, many venture capitalists are looking for better returns in specialty retailing, factory automation, and other fields. Now a few are investing in defense-related companies, too. Some are Vietnam veterans who have acquired M.B.A.s and finance experience and are taking advantage of their military contacts. Others are capitalizing on the Reagan arms buildup, and see a favorable climate ahead for defense-related public offerings. And it doesn't hurt that the Pentagon, in effect, offers working capital to small companies in the form of progress payments on military contracts.

NEA started a defense venture fund, Spectra Enterprise Associates, after discovering that its eight defense-related investments were more successful than any other category. The fund, which is raising up to $25 million, will invest in small defense firms, especially those involved in electronic warfare. During its first nine months of fund-raising, says Harvey, Spectra "went through 66 potential deals without looking for them."

Another new fund, American Advance Ventures, has looked at even more investment opportunities—at least 430 unsolicited plans in its first 11 months—and the firm hasn't even closed its financing yet. Unlike Spectra, AAV plans to invest primarily in companies applying military aerospace and electronics technology to *commercial* markets. One promising area is improved flight instrumentation. "We can put a footprint down in both sectors. A company that we back may very well be selling into the defense side and the commercial side at the same time," says partner Phil Gioia, whose experience includes 10 years as an Army officer, as well as more conventional stints at investment banks and larger venture firms.

—Virginia I. Postrel

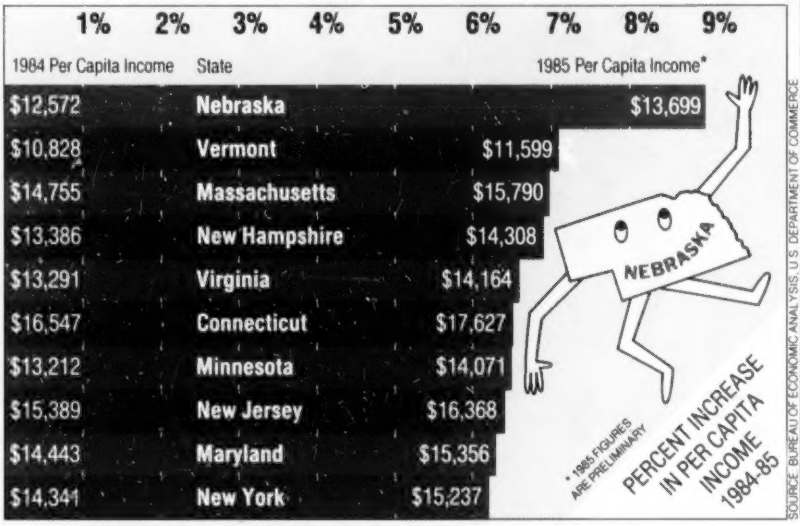
SCORECARD

MORE MONEY TO SPEND

Which state posted the biggest jump in per capita income from 1984 to 1985? Hint: much of the rise came from federal handouts—and we're not talking food stamps here.

Give yourself 10 points if you guessed Nebraska. Federal farm subsidies are pulling the Cornhusker economy up after a long slide, and the ripple effect is helping such nonfarm industries as construction. "The whole state economy started to go downhill around 1979 and '80, and things are just starting to perk up a little bit," says Charles Bare, research associate at the University of Nebraska's Bureau of Business Research.

Two other great beneficiaries of federal largess—Maryland and Virginia—also made the list. The leading region was New England, whose booming economy boosted 4 of its 6 states onto the top 10. *—V.I.P.*



* 1985 FIGURES ARE PRELIMINARY

SOURCE: BUREAU OF ECONOMIC ANALYSIS, U.S. DEPARTMENT OF COMMERCE

NIGEL HOLMES

DWINDLING OPTIONS

Accounting Rule May Squelch Stock Plans

IN APRIL, VICOM SYSTEMS INC. extended its stock option plan to include about half of its 75 employees. The company never dreamed that a change in accounting rules might make it regret the move.

But like many other small companies, Vicom may face a tough choice this fall: it can continue to issue stock options and take a painful hit on its earnings—or it can cut back on options and find it harder to recruit the best employees, who are often lured by the prospect of getting a piece of the action. "Now we have to start looking at different types of incentives," says Connie Osborne, chief financial officer of the maker of image-enhancing computers. "Or we simply may not be able to attract or retain the executives we want."

The Financial Accounting Standards Board (FASB) is expected this year to propose that the value of stock options be charged against earnings. The only major effect of options now is to dilute existing shares. The group, whose rulings are usually adopted by the Securities and Exchange Commission, argues that options have value and should be treated like other long-term compensation. The board is trying to devise a formula that would help guide investment bankers to measure the stock's value. The complicated method would probably use market price, exercise price, and any

THE TAKE AT THE TOP

INC.'S ANNUAL COMPENSATION SURVEY

How small companies reward their key executives.

BY PATRICIA AMEND

THIS PAST YEAR MAY HAVE WITnessed the final triumph over inflation, as some contend, but that has not stopped chief executive officers of small companies from giving themselves huge increases in compensation. In all fairness, other top officers didn't do so badly either in 1985, though they didn't reach the average 25% increase in salary and bonuses claimed by CEOs. To put the raise in perspective, consider that inflation in 1985 was close to 4%; compare that with five years earlier, when, with inflation over 13%, CEOs gave themselves a paltry 18% increase. As for benefits in 1985, there was a move toward adding programs geared to performance—long- and short-term incentive plans, special awards, and performance appraisal systems—while reducing more traditional programs, such as health and retirement benefits.

These are some of the conclusions to be drawn from INC.'s eighth annual compensation survey, a summary of questionnaires sent to a random sample of INC. subscribers. The 853 responses came mostly from private companies that range in size from start-ups with one employee and $2,000 in sales, to 40-year-old companies with thousands of employees and revenues of more than $1 billion. On average, the companies surveyed have 119 employees and sales of $12.6 million, but those figures are a little misleading, due to the presence of a handful of very large companies. Looking at median size rather than average, the typical company has 19.5 employees and $1.7 million in sales.

As for the typical founder and CEO, he is 45 years old, has 11 years with the company, and takes a salary of $71,000. If he pays himself a bonus, and over half do, he'll pocket another $35,000. The chief operating officer, chief financial officer, and chief marketing officer fall just below the CEO in age (they're in their early forties) and in years with the company (7 to 8, on average). Among the three, the COO fares best in salary, bonus, and increases over last year. Ironically, the guy who handles the money, the CFO, gets paid the least.

Figuring out what and how to pay people, especially key employees, is still one of the greatest challenges of running a small company, but it's only one of many. So it is not surprising that most companies in the survey have no formal compensation plans at all. Most use no base salary ranges or any kind of a formal performance appraisal system. Even bonuses are apt to be discretionary and paid at such traditional times as Christmas or year end. But that's not to say that these companies aren't interested in alternative forms of compensation.

Tom Hackett, for example, CEO of Advantage Business Services Inc., a $2.5-million payroll check processor in Auburn, Maine, is working on a cost-tracking system that he can use to set performance bonuses for 15 or 20 of his middle managers. And Charles Chauncey, CEO of LCC Graphics Inc., a $5-million Amherst, N.Y., lithographic prepress service, is looking for a special compensation program that will motivate his hourly workers to keep to the high standards demanded by his quality-concerned customers. What he has in mind is some sort of flexible "payroll pool" with a "little bit of a cushion" that would also protect his bottom line from the sporadic workloads inherent to his business. (It's not that Chauncey hasn't experimented already. He once had a profit-sharing plan, but threw it out because he discovered that a once-a-year check wasn't motivating anybody.) Chauncey also dreams of a new incentive plan for his salespeople. The commission plan he has now, it turns out, is working against the company by encouraging salespeople to sell higher-priced weekend work, a time when the plant is already going full steam with the rush jobs common to the printing business.

The typical executives

Profiles of the top four officers based on survey averages

	CEO	COO	CFO	CMO
Total compensation	$90,362	$69,743	$52,773	$59,799
Base salary	$71,134	$55,803	$45,317	$50,356
Percentage receiving bonus	56%	65%	54%	62%
Bonus as a percentage of base salary	50%	35%	29%	34%
Percentage change in total compensation 1984–85	+25%	+23%	+20%	+17%
Age	45	41	42	41
Years with company	11	8	8	7
Percentage who are also founders	69%	—	—	—
Average equity position	67%	27%	27%	17%

The typical company

A profile based on survey averages

Total revenues	$12,645,000
Employees	119
1985 payroll	$1,741,000
Payroll as a percentage of revenues	13.8%
Percentage that are privately owned	92%

Executive benefits and perks

What benefits and perquisites companies provided top officers

	CEO	COO	CFO	CMO
Company car & expenses	81%	70%	58%	72%
Supplemental life insurance*	74	69	66	61
Supplemental medical insurance*	52	51	52	46
Tax return preparation	51	34	29	21
Club dues & expenses	48	33	27	29
Personal tax & financial planning	34	25	22	16
Annual physical examination	31	27	30	27
Low- or no-interest loan	26	21	17	17
Supplomental retirement benefits*	22	23	22	20
Deferred compensation	17	15	16	17
First-class air travel	14	9	8	9

*Beyond customary companywide benefits

Companies in the survey found the setting of pay levels to be their most difficult compensation problem; their second most difficult problem was figuring out appropriate long-term incentives or equity-participation plans. Mike Nebel, CEO of Vycor Corp., might well put that at the top of his list. Nebel has spent the past four years building up his facility-management firm in Washington, D.C. Now all the computer equipment is in place, the software is ready, some prime government work has been contracted—and Mike expects to go national fast. What he needs are some long-term incentives to attract top management talent. He is considering giving equity participation, but he is still evaluating the long-term impact on the company.

Evidently, many CEOs are toying with one compensation idea or another. But a few have gone far beyond that stage—and they have the results to show for it. Frankie Rich, for one, has developed an elaborate bonus plan, not just for top officers, but for all 49 salaried employees at Action Equipment Co., a $15-million Londonderry, N.H., distributor of light construction equipment. Rich, who once worked for an employer who didn't show any appreciation, "wants people to feel valued here." And so they do. Action Equipment distributes most of its pretax profit to employees each year who then give it back to the company in the form of a two-year "loan." The loan, plus interest, is paid back to employees every week in the form of a second paycheck. Rich's scheme raises a lot of questions: Wouldn't it be smarter to put the money back into the company? Isn't it risky to tie up the company's future cash? Maybe so, but you couldn't tell it by the numbers. Action Equipment, #18 on the INC. 500 list of America's fastest-growing private companies this past year, had a 7,013% gain in sales from its founding in 1980 through 1984.

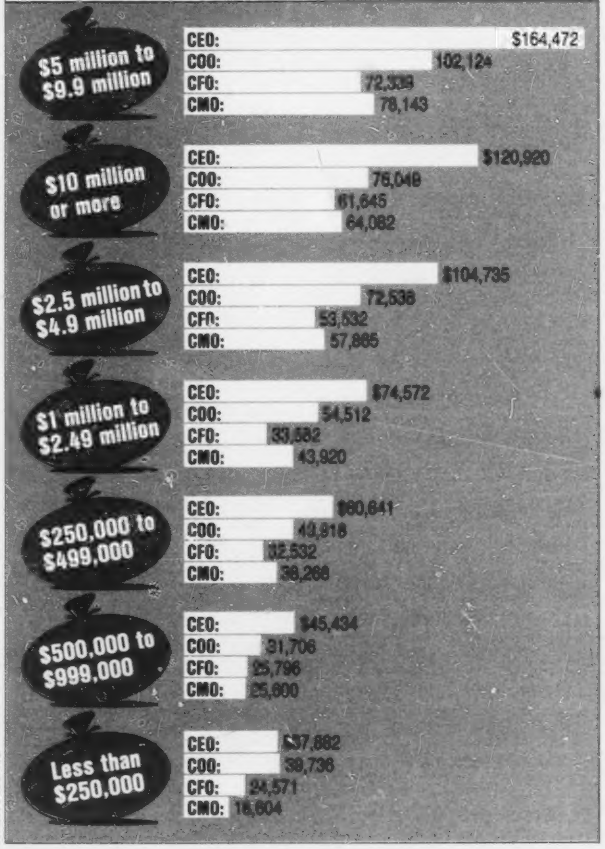
Dynamark Securities Center Inc., with a 1,301% growth in revenues during the same period and placing #165 on the INC. 500 list, also came up with an unusual incentive plan. The firm, a distributor of home security systems in Hagerstown, Md., had a thorny problem to solve. Dynamark is made up of two recently merged companies, and is run by all four original owners. To keep things working smoothly, says chairman Ed Cusick, they had to devise a system that would satisfy all four egos. "Compensation for key people," Cusick says, "is based entirely on the contribution that the area they manage makes to overall corporate goals. It's not tied directly to profits, because it may not be one department's fault that another department fell off." He adds, "We've been able to attract the players into this merger because they have [what amounts to] the entrepreneurial freedom to run a company of their own."

As for the future, the average CEO in the survey expects to give 12% salary raises to his top officers this year. Bonuses, more apt to be discretionary, are harder to predict. Many, however, will be based on sales and profit goals, and here our CEOs are an optimistic bunch. More than a quarter say they expect sales will increase by 21% or more for fiscal '86. If a common thread runs through the INC. survey, it is that most of the companies do look to the future with optimism—and with the expectation of having the time and energy to try out new ideas. Close to half of the survey respondents said they were already thinking about future changes in compensation programs. A performance appraisal system was highest on their wish list of companywide plans, followed by annual incentive programs for all employees. Since almost a quarter of the companies had in fact made changes in their executive compensation programs this past year, there's every reason to believe they will act on their intentions. ☐

(charts continued on page 52)

EXECUTIVE COMPENSATION: by company revenue

How much the top four officers received in salary and bonus according to company revenue



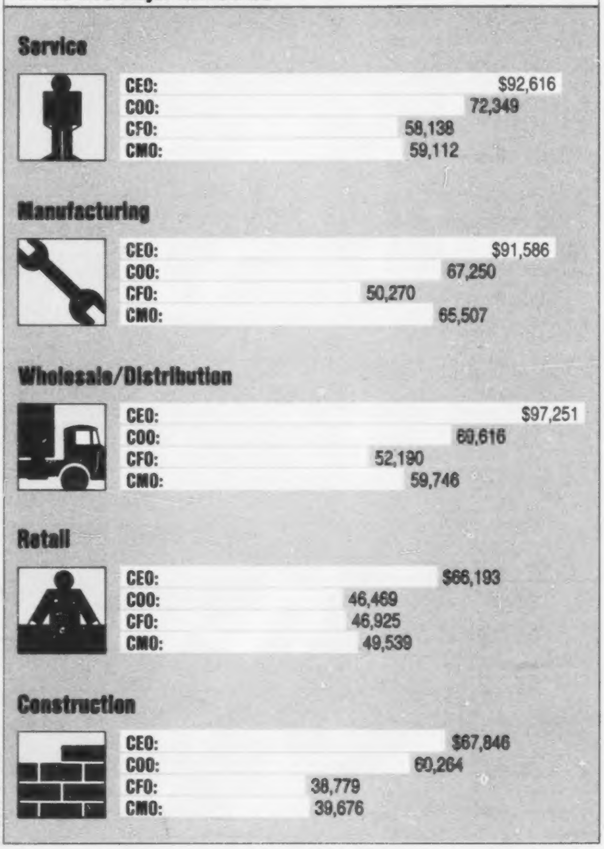
NIGEL HOLMES

The survey makes clear that the more revenues a company takes in, the more its top executives take home in salary and bonus. The fact is, the gap between the chief executive officers at the top and those at the bottom has widened over the past few years. In 1980, for example, CEOs of companies in the largest range—$10 million or more in revenues—paid themselves roughly three-and-a-half times as much as their counterparts in the smallest companies surveyed that year, those under $500,000. This year the multiple is close to four-and-a-half. But, as the CEO of a $1.2-million service firm in Michigan might tell you, averages are only averages. This CEO didn't take a salary at all the first year of his three-year-old business. Sometimes, to finance growth, he covered the payroll himself rather than borrow from his franchisor or the bank. Why the conservative approach? "Every business has its cycles," he says. "I don't want to be in a down cycle and owe the bank a ton of money. I want to build a business here."

Percentage of survey responses by company revenues: $10 million or more, 18%; $5 million to $9.9 million, 11%; $2.5 million to $4.9 million, 13%; $1 million to 2.49 million, 21%; $500,000 to $999,000, 14%; $250,000 to $499,000, 9%; under $250,000, 14%.

EXECUTIVE COMPENSATION: by industry

How much the top four officers received in salary and bonus in the five major industries



NIGEL HOLMES

In comparison to their counterparts in other industries, chief executive officers of manufacturing companies traditionally have been the highest paid, according to INC. compensation surveys. This year they've been nudged out by CEOs in the wholesale/distribution business and by those in service. (For chief marketing officers, though, manufacturing still looks to be the best bet for earning a good salary and bonus.) The CEO of a $3.6-million manufacturing firm in Michigan may be representative of the times. He pays his COO $38,000, his CFO $32,000, and his CMO $33,000. His own take? Zero. When you own 90% of a firm that's losing money or just breaking even, as he does, you lose. There's been a lot of publicity about the lower-paying service industry overtaking manufacturing in the United States. Judging from the INC. survey, however, service companies pay just fine, at least on the executive level. The CEO of a $26-million service firm in Virginia, for example, says he has no complaints with his $225,000 salary and $400,000 bonus.

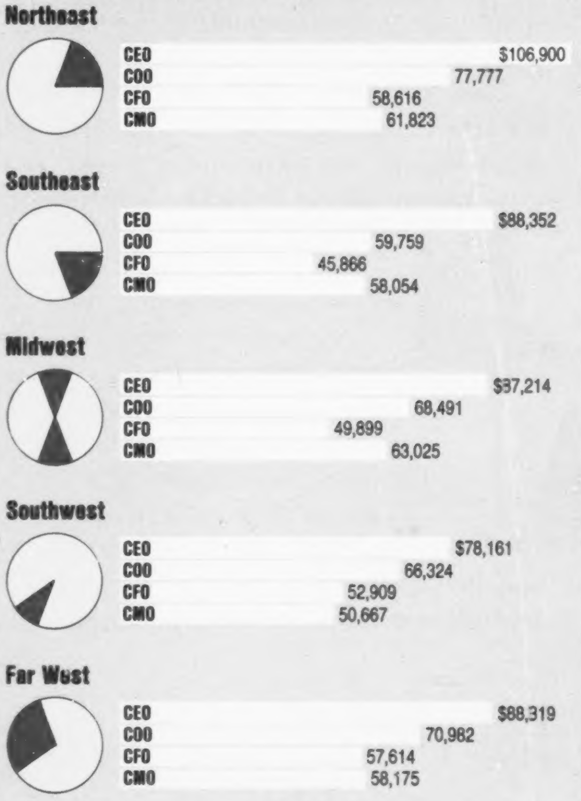
Percentage of survey responses by industry: service, 44%; manufacturing, 23%; wholesale/distribution, 14%; retail, 8%; construction, 6%; other, 5%.

THE FACTS BEHIND THE FIGURES

This is the eighth consecutive year that INC. has conducted an executive compensation survey. In late February, we mailed a four-page questionnaire covering executive salaries, benefits, bonuses, and policies to a random sample of nearly 23,000 subscribers. Data Tabulation Services Inc., of Stoneham, Mass., compiled the 853 returns under the direction of special projects editor Sara Baer-Sinnott. To expand on issues covered in the survey, INC. hosted a roundtable discussion in April. Among those attending the session were five of the chief executive officers who responded to the survey; Peter T. Chingos, practice director of Peat Marwick Mitchell & Co.'s Executive Compensation and Personnel Consulting division; and Bruce Hanson, a Boston-based compensation expert with Towers, Perrin,

EXECUTIVE COMPENSATION: by region

How much the top four officers received in salary and bonus in the five major regions of the country



NIGEL HOLMES

Top executives of private companies do best in salary and bonus in the Northeast. That fits right in with the stereotype of the region as wall-to-wall factories. And how do other regions fit their stereotypes? Well, the Midwest brings to mind farms and factories; the West and Southwest, high tech and lots of space; the Southeast, textiles and more agriculture. But look closer, and you'll find some surprises. Consider one Alabama magazine publisher who responded to the survey. With a healthy $17.2 million in sales, this CEO pays himself $240,000 in salary and a $120,000 bonus to boot. That's more than four times the average for the Southeast. Then there's the CEO of a $42-million Salt Lake City retail operation who paid himself $100,000 each in salary and bonus. That made his take more than twice the average for his region. And even though Texas has been having problems lately, one Dallas electronics manufacturer isn't hurting too badly. The CEO of this $26-million company reports giving himself a $256,000 salary and a $90,000 bonus, nearly four-and-a-half times the region's average. So much for stereotypes.

Percentage of survey responses by region: Northeast, 22%; Southeast, 14%; Midwest 34%; Southwest, 11%; Far West, 19%.

Forster & Crosby, a management consultant firm.

Complete results of the survey, in which the confidentiality of all responses is protected, are available. To obtain a copy, send a written request and a check for $65 to INC. Executive Compensation Study, Attn: John Titus, 38 Commercial Wharf, Boston, MA 02110, or call (800) 372-0018. In Massachusetts, call (617) 227-4700.

The executive bonus

How companies provided bonuses to top officers

Companies paying bonuses	78%
Type of bonus*	
Cash	99%
Stock	7%
Other	2%
Basis for allocation of bonuses*	
Discretionary	56%
Achievement of sales goals	21%
Achievement of profit goals	32%
Percentage of sales	6%
Percentage of profits	25%
Return on equity/assets/sales	8%
Companies with a bonus pool	25%
Basis for establishing bonus pool*	
Discretionary	39%
By a fixed formula	36%
By a formula set annually	25%

*Totals may exceed 100% because of multiple responses.

Changes in executive compensation policies

What programs companies added or cut this year

Percentage of companies that made changes 22%

	Added	Cut
Short-term incentive plan	42%	30%
Long-term incentive plan	25	13
Health/retirement benefits	29	44
Perquisites	13	26
Special recognition/awards	24	9
Performance appraisal system	33	4

The most difficult issues

What compensation questions were found to be of greatest concern, in order of difficulty

1. Determining worth of job; setting pay levels
2. Determining appropriate long-term incentives or equity participation plans
3. Developing annual incentives/bonuses
4. Controlling benefit costs

*5. Keeping abreast of tax law changes (developing tax-effective compensation plans)

*5. Obtaining competitive compensation information

*Tied for least concern

THE TAKE AT THE TOP

PAY FOR PROFITS

How the most competitive companies around are "incentivizing" their compensation systems.

BY BRUCE G. POSNER

BACK IN THE LATE 1960s, SHANNON & Luchs Co. was just one of a dozen or so small real estate brokerage businesses in Washington, D.C. Its managers were all paid in accordance with the norms of the industry, and they received the standard merit raises and bonuses at the end of each year. Then, around 1970, the company overhauled its executive compensation system. In addition to their regular salaries, division heads were given the opportunity to earn a percentage (10% to 25%) of the net profits of their respective divisions, adjusted for overhead and other expenses. The result: sales and profits took off. Today, Shannon & Luchs is one of the largest and most profitable real estate companies in the United States. Company president Foster Shannon gives full credit to the compensation system.

Such tales may sound too good to be true, but they are becoming increasingly common as more and more companies turn to incentive pay as a means of achieving strategic objectives. The trend is easily the hottest one to hit the compensation field since the cost-of-living raise. It involves a whole different approach to compensation, one that is geared toward achieving future objectives, rather than rewarding past performance. To date, thousands of businesses have adopted such systems, and those that try it swear by it. Most practitioners will tell you that—in addition to fostering phenomenal results—incentive compensation allows them to recognize the movers and shakers in their organizations, the people who make things happen, and to inject a new sense of vitality and purpose into the company as a whole.

Testimonials aside, the trend reflects important changes in the business environment. As inflation has declined, companies have found it harder to justify the big raises that were common in the 1970s and early '80s, and so they have begun searching for new ways to keep employees motivated. Even more important has been the pressure of increased competition, forcing companies to become ever more efficient and profitable.

Among the first to move in the direction of incentive compensation were the *Fortune* 500 companies. A study by Hewitt Associates, in Lincolnshire, Ill., shows that more than 90% of the nation's largest companies had short-term incentive plans as early as 1980. These plans made it possible for participating managers to earn bonuses totaling 16% to 55% of their base salaries, given the achievement of certain operating or financial targets. Since then, thousands of smaller businesses have set up incentive plans of their own.

On the surface, at least, creating an incentive-pay program doesn't appear to be difficult at all—provided you understand where your company is, and where you want it to be. You have to know, for instance, what you're shooting for, whether it's more profitability, higher sales, better service. As a wise man said, if you don't know where you're going, the odds are you'll wind up somewhere else.

Once you are clear about your objectives, however, the rest falls into place. First, you have to decide who to include in the plan. If you want to increase profitability, for example, and if your business is composed of relatively autonomous operating units or product areas, you may well decide to focus on a handful of key managers—the ones with the leverage to make sure their respective units make money. On the other hand, you may have a company like Riley Gear Inc., in North Tonawanda, N.Y., a $6-million manufacturer of precision gear systems, whose success depends on its ability to deliver quality products on time at competitive prices. Since every employee plays a role in achieving the company's productivity goals, all 90 of them receive a quarterly bonus check when targets are met.

Of course, you also have to choose the performance criteria by which you'll hold people accountable. Here, your decision is almost entirely a function of your goals. Indeed, two identical companies might deliberately choose different performance criteria. One, for example, might decide to reward nothing but sales growth as a way to spur aggressive selling, while the other might target profits or quality control. The latter business would, in effect, be telling people to say no to some business opportunities. But each company, in its own way, would be encouraging the kind of behavior it wanted.

Then again, some companies might want their employees to pay attention to more than one goal at a time. For several years, Nicolet Instrument Corp., a Madison, Wis., manufacturer of medical and chemical testing equipment, calculated its management bonuses using a formula that took into account both sales growth and return on assets. With two important goals to balance, says chief executive officer and president John Krauss, there were no rewards for leaning too far in one direction. Other companies accomplish the same thing by establishing separate incentive pools tied to the achievement of different objectives.

Whatever measures you choose, they must be readily comprehensible to the employees they affect. If employees don't know what kind of performance you are trying to encourage—or why it's important—they aren't likely to respond as you intend. You either have to explain what you are trying to accomplish, or choose other measures. By the same token, the performance criteria must involve aspects of the business that the affected employees can control and monitor. That means providing them with the data—monthly sales figures, production reports, profit statements—that will show them how they are doing.

Within these parameters, however, you have a lot of flexibility, not to mention influence. You can, indeed, attach incentives to almost anything—and thereby determine how managers and employees spend their time and where they focus their attention.

Now, none of this seems particularly difficult. You choose your goals, your people, your performance criteria. What could be simpler? Well, not so fast. The problem is that, at every stage, you have decisions and judgments to make, and any one of them can undermine your plan.

Consider, for example, the choice of performance criteria. Should you establish custom-made targets for individuals, or is it better to tie their incentives to the performance of the company as a whole? Dynamark Security Centers Inc., a $5.5-million franchisor of home security centers and distributor of security equipment, gives

THE INDIVIDUAL INCENTIVE

Tailoring the bonus to the job

ROSEMARIE CERTO

Michael Zisman
President of
Soft-Switch Inc.

Establishing incentives for individuals takes time, and many jobs are difficult to measure. But Michael Zisman, chairman and chief executive officer of Soft-Switch Inc., in King of Prussia, Pa., thinks that individual incentives are critical to the success of any compensation program. Last year, his company, an $8-million maker of computer networking software, embarked on a program that provides special rewards for about one-third of Soft-Switch's 70 employees.

The idea, says Zisman, was to encourage key employees to focus on individual objectives that are important to the overall success of the business. To provide the necessary rewards, Soft-Switch established a bonus pool based on its achievement of certain sales and profit targets. If the targets are met in fiscal 1987, for instance, the company will kick in 20% of the combined base salaries of affected employees. How that money gets divided depends partly on each individual's contribution to the company's collective success. Last year, for example, half of the potential bonus for the vice-president of operations was tied to such things as improving customer satisfaction ratings and reducing the time required to install products. (The other half was tied to the overall performance of the business.) Similar criteria are applied to many nonline positions as well. A large chunk of the controller's bonus, for instance, is linked to getting monthly reports in on time.

Zisman admits that it's not always easy to define the right objectives for jobs, but he argues that, without individual goals, some critical tasks will never become priorities. What's more, you'll always have a hard time differentiating between levels of performance, and everyone will wind up with roughly similar rewards.

THE GROUP INCENTIVE

Rewarding a company as a team

PHIL MATT

Tom Lowry
President of
Riley Gear Inc.

Suppose you had a company in which each and every employee had the power to undermine your competitive position. That was the problem at Riley Gear Inc., a maker of precision gears, in North Tonawanda, N.Y. The solution was to create a compensation system that gives all 75 manufacturing people and the 15 other employees a significant financial stake in the overall success of the company.

The system is known as gain-sharing, and it is built around monthly productivity targets. Every order that comes in to the $6-million business is broken down into a series of production steps, which are assigned hourly rates related to the capabilities of the equipment and the complexity of the work. These rates are then used to create a "blended" productivity target for the company. The amount that Riley puts into the bonus pool each month depends entirely on the achievement of the companywide target, which in turn depends on the workers meeting, or exceeding, their goals.

In the two years the system has been in effect, Riley's hourly workers have earned 3% to 4% a year in extra compensation—over and above the annual increases of 3.3% provided in their three-year union contract. President Tom Lowry thinks that bonuses of 8% to 10% a year are well within reach "as long as the productivity is there." He's also talking about adding nonfinancial rewards, such as extra vacation time.

Of course, there are trade-offs involved in paying plantwide bonuses. "If you have superb performers, you can't really recognize them," Lowry notes. Nevertheless, he believes the benefits of the system outweigh its liabilities. "There's a lot of peer pressure. People know that if we get the cost reductions, everyone gets something. And they understand it's a competitive market, and we're all in this together."

each of its nine key managers and supervisors a different set of performance targets. The marketing and training manager, for instance, gets a small slice (about 1%) of sales up to a given level, and a smaller percentage after that. The head of franchise development, on the other hand, gets a cut of the franchise fees and the inventory ordered by new franchisees. "The structure of the deals is basically the same," says chairman Ed Cusick, "but everyone gets his own report card."

Some businesses go even further, linking an individual's reward to the accomplishment of specific tasks. Thus, at Morris Decision Systems Inc., a computer dealership and maintenance company in New York City, the vice-president of finance has to get a new general-ledger system up and running in order to earn a part of his bonus for 1986.

But there can be problems with this approach. First, it takes time and effort to select the right goals. Then there is the administrative burden of monitoring the performance of many individuals. But perhaps most worrisome is the possibility that what's good for a particular individual, or group of individuals, may be awful for the business as a whole.

In the early '70s, for instance, Nypro Inc., now a $65-million plastic injection molding company in Clinton, Mass., began to reward employees for their own individual output. Some enterprising workers found ways to speed up production equipment during their shifts. They refused to share their secrets with their colleagues, however, and the high-speed work undermined quality. So Nypro was forced to switched from individual to group incentives.

Fearing similar problems, many companies require a certain level of overall results before individual bonuses are paid. "You can say, if we earn so many dollars, or if we get into the World Series, you'll get a reward," notes Peter T. Chingos, who heads the compensation consulting practice at Peat, Marwick, Mitchell & Co. But finding the right balance is not easy.

Nor is it easy to establish performance standards for every job. True, you can set quotas for salespeople and determine efficiency ratios for plant managers. You can even measure performance in such areas as quality control: at Soft-Switch Inc., a King of Prussia, Pa., software company, the quality-control manager is rewarded in part on the basis of results from customer-satisfaction surveys. But what do you do with a human-resources manager? Should you measure employee turnover? In many cases, turnover is totally beyond a manager's control. What's more, if you *do* target turnover, you run the risk of winding up with unambitious employees whose main virtue is that they don't like to change jobs.

To avoid these sorts of decisions, many CEOs prefer to maintain a certain amount of discretion over bonuses. In rewarding vice-presidents and project managers, Joseph Viar takes into account the "degree of difficulty" of the projects they manage. He could pay strictly on the basis of volume of business under management, "but different jobs rely on different mixes of inside people, consultants, and subcontractors," says Viar, president of Viar & Co., an Alexandria, Va.-based consulting company in the data-processing area. Thus they require different amounts of management, and he compensates accordingly.

Then again, you can't use too much

THE PHANTOM STOCK INCENTIVE

Eating your cake and having it, too

TOM SIMON

Al Weatherhead
Weatherchem's founder and CEO

How does a private company get key employees to lose sleep over the business without giving up equity? That was the question confronting Weatherchem Inc., a $6.5-million maker of plastic caps and closures located in Twinsburg, Ohio. Its solution: "phantom stock," an increasingly common technique by which a company rewards employees for building the business's value, while keeping the stock in the original owner's hands.

As founder and chief executive officer of the family-owned company, Al Weatherhead knew he wanted to institute some kind of long-term reward system to get his half-dozen key managers focused on "profitable growth." Real equity made him nervous, however. Among other things, he didn't know how long the key people would stay around the 65-employee company, and he didn't look forward to endless battles over stock valuation. Under the phantom program, adopted in May 1982, selected managers will receive a share of the amount by which Weatherchem's value appreciates over a five-year period. The value is calculated according to a formula that takes into account the company's return on assets and return on equity, both adjusted for its cost of capital.

The plan has encouraged managers to focus on Weatherchem's long- and short-term objectives, but Weatherhead is dissatisfied with the formula. "It's too damn complicated, and it isn't something you can pound the table over." So the company is formulating a new, simpler phantom plan to take effect when the first one expires next May. The new formula, he says, will probably be based on cumulative profits over a three-year period. Why three years this time, instead of the five years in the original plan? "Five years," Weatherhead offers, "just seemed a bit too long."

THE REAL EQUITY INCENTIVE

When nothing else will do

RICHARD HOWARD

G. B. Lankton
Nypro's CEO and president

Few owners of small companies relish the idea of taking on their employees as partners and minority shareholders, but that was not the case with Gordon B. Lankton, president and chief executive officer of Nypro Inc., a highly successful plastic injection-molding company in Clinton, Mass. He inaugurated the company's unusual stock bonus program 17 years ago, and he has never regretted the decision.

Created in 1969, when Nypro was a struggling $4-million business, the plan was designed to encourage employee commitment and achievement by making equity available to people throughout the company. Eligibility is based on a formula that takes into account three factors: length of service, salary level, and job performance. Every year, employees receive points in each category. If an individual scores 20 points or better, he or she can receive a special equity bonus.

The equity takes the form of real stock. The program is not an employee stock ownership plan and uses none of the tax advantages associated with ESOPs. Nor does Lankton view phantom equity as a viable alternative in a company like his. "I want [the stock] to feel real," he says. "You can explain phantom stock to people who are financially sophisticated, but it can be incredibly confusing to everyone else."

As Nypro has grown—today, it is a $65-million company with 1,200 employees—some 90 employees, about half of them nonmanagers, have become shareholders. Meanwhile, the value of the stock (measured by book value) has shot from $3.50 a share in 1969 to $25 last year. To discourage employees from leaving, Nypro requires departing shareholders to sell their stock back to the company over a period of 5 to 10 years—thereby minimizing the impact on Nypro's cash flow.

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discretion in awarding bonuses without undermining your incentive program. If the principal basis for compensation is the boss's whim, the only real incentive is to stay on his good side.

At this point, you still have to decide how much money you should dish out in the form of incentives. It can't be so much as to imperil the business—by getting in the way of meeting debt service payments, for example—yet it has to be enough to attract employees' attention. As a rule of thumb, most compensation experts advise that you make available incentive bonuses of at least 10% to 15% over base salaries. Employees will tend to regard smaller bonuses as "tips," which may motivate them to work a little harder and "smarter," but not enough to justify the effort and expense of establishing an elaborate incentive system.

Then there's the related issue of selecting the right performance levels—a critical part of the process. If the targets are too high, people may give up. If they're too low, you may encourage people to take it easy. What happens, for example, if you surpass the target midway through the year?

And what if you set target levels that inadvertently wind up *penalizing* your best employees? That's more or less what happened at The Myers Group Inc., a freight forwarder with 65 offices around the country. For several years, the company paid out bonuses according to a formula that rewarded people annually for profit improvements at their individual branches. The formula was designed to motivate those who worked at the least efficient locations, and that it did. But it provided little incentive for employees assigned to the most profitable branches. Moreover, the system became less and less effective over time. The better an office did one year, the harder it was to receive a bonus the next. People grumbled, and so the company, based in Rouses Point, N.Y., eventually scrapped the formula. Now incentives are tied to the overall profitability of each office and of the company.

Once you have settled on performance levels and criteria, you still have to decide how often people will be rewarded—an aspect of incentive compensation that is often overlooked. After all, the real test of any incentive program is its ability to keep people focused on company objectives. Annual bonuses are traditional, and relatively easy to administer, but can employees stay focused on targets for a whole year? Gordon Lankton of Nypro, the plastic molding company, doesn't think so. His company pays its productivity bonuses on a quarterly basis because "a year can feel like a long time," he says. To make sure that everyone notices, Nypro even uses special profit-sharing checks with a picture of George Washington in the center and "profit-sharing" printed across the top.

On the other hand, quarterly bonuses can be extremely impractical from a company's perspective. Not only does it take administrative effort, but it demands an ability to forecast with precision and to anticipate cash-flow needs. Recently, an air-freight company paid out substantial incentive bonuses at the end of one quarter, only to hit a dry period the next. It hastily revamped its quarterly incentive program. Now nonmanagers get bonus checks after each profitable quarter, but managers don't receive theirs until annual results are in.

So, if you look hard enough, there are solutions to all these potential problems. The bad news is that, once you've come up with a viable short-term incentive plan, you

STRATEGIES FOR INCENTIVE COMPENSATION

You can look outside for help and inspiration, but the answers are all close to home.

There are no real shortcuts to creating an effective incentive compensation system. No matter how you approach it, you still have to ask, and answer, dozens of difficult questions about your goals, your people, and your business. It helps, however, to have a strategy for dealing with these questions. There are essentially three to choose from:

THE COPYCAT METHOD

One strategy is to adapt somebody else's plan to your own circumstances and needs. It's particularly appealing if the other company is similar to yours, and if its system has worked well.

That was the case with Nicolet Instrument Corp., which developed its plan back in 1981 after chief executive officer John Krauss saw an article in the *Harvard Business Review* about the incentive compensation program at Analog Devices Inc. As it happened, Analog had management and operating structures strikingly similar to Nicolet's. So Krauss copied Analog's incentive compensation program, and it worked effectively for several years.

There are pitfalls in the copycat approach, however. To begin with, no two companies have identical cost structures: if your costs are higher than those of the company you're copying, you may be stimulating behavior that you can't afford. Nor can you assume that the other company's market position or goals are the same as yours. If they aren't, the performance criteria are liable to be off as well. "Copying another incentive plan," says one consultant, "is like trying to learn Jimmy Connors's backhand when you don't have his serve." It may work; then again, it may throw everything out of whack.

THE CONSULTANT ROUTE

Another strategy is to hire a specialist to design your compensation program for you. That's a natural impulse, and consultants do have much to offer in the way of advice and experience. But many have worked only with large companies, which does not help them in understanding and solving the compensation problems of smaller companies.

James Bernstein learned that lesson the hard way when he brought in a well-known consulting firm to design an incentive plan for his $4.5-million health risk-management firm, General Health Inc., based in Washington, D.C. He wanted a compensation system that would encourage employees to focus on sales volume and building market share. With that mandate, the consultant produced an elaborate plan under which all 80 employees could earn handsome bonuses by meeting individual and company objectives. "The consultant gave me his best advice," says Bernstein. "It sounded just terrific." Unfortunately, it wasn't. Not only did the system demand hours upon hours of management time to review each employee's objectives, but it also completely overlooked the company's need to change direction and shift people around on short notice. Objectives that made perfect sense one week were outdated the next.

Within a year, General Health scrapped the consultant's incentive program and installed a simpler one designed by Bernstein himself. Dispensing with individual goals for everyone but salespeople, the new system rewards employees for meeting quarterly profit objectives. It takes a lot less time to administer, notes Bernstein, and yet it's enough to send the message that "everyone needs to put their shoulder to the wheel."

THE TAKE-YOUR-LUMPS APPROACH

Bernstein's experience illustrates a fundamental fact of incentive compensation: sooner or later, you have to develop your own system. There are no blueprints, and there are no outside cures. You may discover some interesting features in other companies' programs. You may also find consultants who can help you think through your company's needs. But don't expect anyone to understand your company as well as you do.

"There's no substitute for sitting down, locking yourself in a room, and thinking about what's really important to your business," says Bernstein. "Otherwise you'll end up with a cookie-cutter approach that was designed for the company next door." So, in the end, most companies wind up developing their compensation programs the old-fashioned way—by doing it themselves.

still have to confront the issue of *long-term* incentives—the kinds of rewards that ensure employees stay focused on a company's objectives over the long haul. Those kinds of incentives can be just as important as the quarterly and annual ones, maybe more so, and the issues involved are no less thorny. Should you give people real stock, or stock options, or some sort of substitute, such as "phantom equity"? In a private company, how much information should you reveal? How should the value be determined? Who should you include in the plan? How often should you make awards, and at what level? Should you pay dividends? How can people cash out? The list goes on and on. In effect, you have to start all over again, deciding what kind of behavior you want to encourage, and why.

And, as they say on late-night television, THAT'S NOT ALL! You also have to be prepared to change your plan (or plans) at least every couple of years. Why? Because companies change, markets change, people change, objectives change. Even the best plans aren't good forever. Some need to be rejiggered every year—adjusting the performance criteria, including other people, and so on. From time to time, moreover, you may have to scrap the whole system and start again.

Consider Nicolet Instruments, which recently has been forced to restructure its program in response to a slowdown in its market. The original system rewarded managers according to the performance of individual product groups. It worked fine, says CEO Krauss, when the company was smaller, and growing at 25% to 30% a year. But now the growth has leveled off, and the old rules don't apply.

Incentive compensation takes an enormous amount of time and effort. It also requires that you think strategically about your business, that you provide significant rewards for performance, and that you be willing to share a lot of information with your employees. The systems that work best are the ones with clear objectives that people can understand and clear incentives that they can follow. If you can't provide those things, or don't want to, you might as well save yourself the trouble. Incentive compensation is not for you.

There's only one problem with that attitude. The evidence is overwhelming that a well-designed incentive system can have a major impact on a company's performance, giving it a new competitive edge. So if you don't set one up, you run the risk that your competitors will.

In fact, it could be that the company passing you on the right already has one. ☐

THE RELUCTANT ENTREPRENEURS

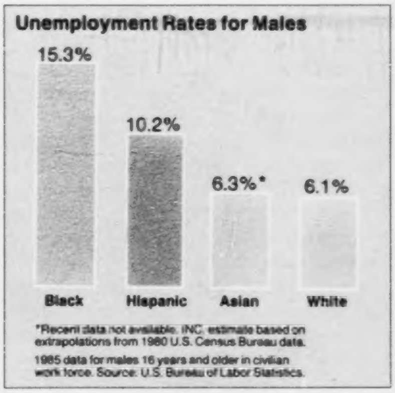
Are American blacks still stuck on the bottom rung of the economic ladder because so few start businesses of their own?

BY JOEL KOTKIN

THERE IS NO MORE VEXING PROBLEM for the American economy, or American democracy, than the worsening economic plight of American blacks. Blame white racism or the lack of black self-reliance. Point the finger at government programs that offer too much or too little. There is at least a germ of truth in each of these. But none of these highly charged explanations gets beyond the point of political rhetoric to the more fundamental dilemma: why is it that other minority groups have recently found their way into the great middle class while so many blacks still find themselves at or near the bottom rung of the economic ladder?

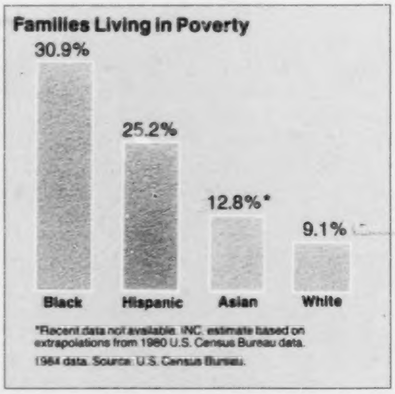
The accompanying charts begin to define the problem. In 1980, the Census Bureau found that median black family income was only 61% of white median family income—where it has been, roughly, since the mid-1960s. And since 1980, things have only gotten worse. Compare that with Hispanics, the next largest American ethnic group, whose income has been climbing steadily over the past decade and is now about 70% that of whites; or Asian-Americans, who have long since stepped ahead of whites. Statistics on unemployment, poverty, or welfare dependency all support the same general conclusion: that black America is falling even further behind.

It would be more comfortable to ignore these statistics and focus more positively on the growing black middle class. But even among these success stories there is something distinctive and revealing about the black experience—namely, the relative lack of black entrepreneurship. For Asian- and Hispanic-Americans, as with the Jews and Greeks and Italians before them, the favored path to upward mobility has lain in the starting of small, independent businesses. For blacks, by contrast, mobility has been defined quite differently—in terms of education at universities and professional schools, employment in large corporations or government bureaucracies, or celebrity



*Recent data not available. INC. estimate based on extrapolations from 1980 U.S. Census Bureau data.

1985 data for males 16 years and older in civilian work force. Source: U.S. Bureau of Labor Statistics.



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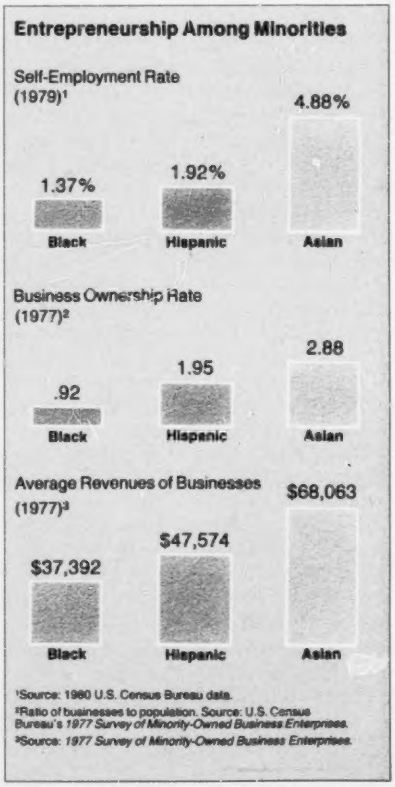
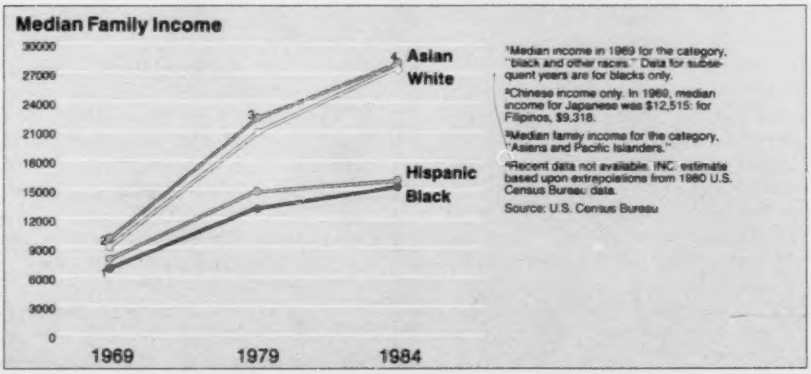
1984 data. Source: U.S. Census Bureau.



[1] Source: 1980 U.S. Census Bureau data.

[2] Ratio of businesses to population. Source: U.S. Census Bureau's *1977 Survey of Minority-Owned Business Enterprises.*

[3] Source: *1977 Survey of Minority-Owned Business Enterprises.*



[1] Median income in 1969 for the category, "black and other races." Data for subsequent years are for blacks only.

[2] Chinese income only. In 1969, median income for Japanese was $12,515; for Filipinos, $9,318.

[3] Median family income for the category, "Asians and Pacific Islanders."

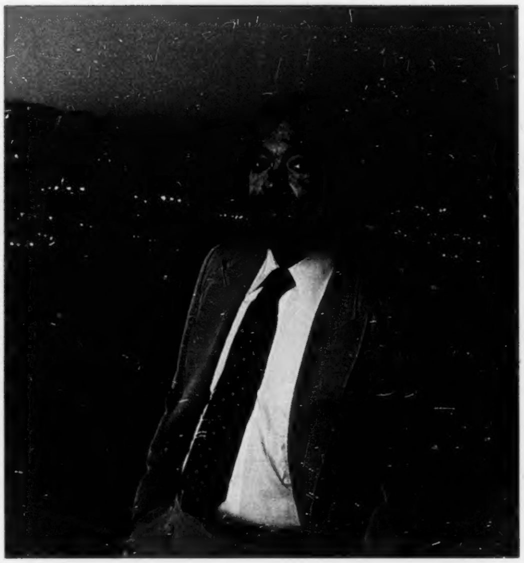
[4] Recent data not available. INC. estimate based upon extrapolations from 1980 U.S. Census Bureau data.

Source: U.S. Census Bureau

CHARTS BY BRUCE SANDERS

"Blacks haven't wanted to venture out on their own. They have relied on other people to make opportunities. They don't realize it doesn't kill your soul to be a capitalist."

BONDIE GAMBRELL,
REAL ESTATE DEVELOPER,
LOS ANGELES



in sports and entertainment. And perhaps more than any other factor, this absence of a black entrepreneurial tradition explains why the advances of some have not led to the advancement of many.

"You can talk about the other problems of our community, but the real cause is that we have failed to get into business," says Tony Brown, who hosts a popular series for public television. "We have to do something to shore up our economic institutions, to generate jobs *within* the community. When we take care of that, the other stuff—the family problems, crime, our political needs—will start taking care of itself."

The Census Bureau surveys minority business ownership only once every five years, so the most recent data available are a bit stale. But they show that while black entrepreneurship has been on the rise, it has been at a pace slower than other minorities. From 1972 to 1977, for example, the number of black-owned businesses rose 23%, but during the same period, Hispanics and Asians doubled their number of enterprises. A private study based on 1977 data reported that blacks owned about nine enterprises per 1,000 population—a rate about half that of Hispanics and a third that of Asians. Rates of self-employment, as reported in the 1980 Census, also reflected the same relative position.

Even in such fields as franchising, which has been the target of heavy lobbying and exhortation by such groups as Jesse Jackson's Operation PUSH, blacks are now falling behind other minorities. In 1973, blacks owned more restaurant franchises than either Hispanics or Asians, but by 1984 it was just the reverse. In fact, the number of Asian-owned franchises grew at a rate of about four times that of blacks.

In Los Angeles, where I live, you get a sense of these trends simply walking through the city's ethnic neighborhoods. Hispanic East Los Angeles, Chinese Monterey Park, and Koreatown, on the edge of downtown, are all bustling with new and growing businesses, both retail and manufacturing. There is noise and congestion; signs in a potpourri of languages compete for your attention. By comparison, black sections of Watts and South-Central L.A. convey an attitude of abandonment. Many of the storefronts are vacant. The manufacturing firms that survive employ Asians and Hispanics. The commercial life consists of little more than liquor stores, franchise restaurants, and bars—and, increasingly, even these are falling under ownership by Asians and other outsiders.

"Blacks have not had the mentality to do what the Koreans and Hispanics are doing," says Bondie Gambrell, a black real estate investor and developer in Los Angeles. "They haven't wanted to venture out on their own. They have relied on others to make opportunities. They don't realize it doesn't kill your soul to be a capitalist."

Robert A. Hill is a black historian at the University of California at Los Angeles and, like many who have studied the black experience in America, he traces the lack of an entrepreneurial tradition to African origins and the brutality of the American system of slavery. Africa, Hill points out, is a more communitarian society, where notions of private property have never been so entrenched as in Europe or North America. "The culture of capitalism is just not part of our African heritage," he maintains.

Certainly slavery and its progeny, the sharecropper system, did nothing to foster confidence, independence, or a capitalist inclination among Afro-Americans. Before slavery and after, white landowners considered that the proper way to treat the black was, in the words of one slave owner, to "create in him a habit of perfect dependence. . . . " And it was a system that proved to be enormously successful and enduring. Here is a race of people who for generations, both before and after Emancipation, were denied freedom of movement, education, and even a rudimentary familiarity with the free market—to say nothing of credit, legal status, or safety from lynch mobs. That their descendants have not taken naturally to entrepreneurship should hardly come as a big surprise.

Despite that, there were black entrepreneurs going back even before Emancipation. Among the country's half-million "free persons of color" were a considerable number of artisans, professionals, and owners of businesses—nearly 85% of the freed black community in New Orleans, according to one account. In the years after Emancipation, these families became the basis of a black merchant class in cities north and south, and it was through such enterprises as theirs that black income in the last third of the nineteenth century grew faster than that of whites.

By the turn of the century, in fact, there was something of a golden age of black enterprise in America. From his National Negro Business League, Booker T. Washington exhorted fellow blacks to "uplift" themselves by striking out on their own. And from the pulpit, ministers like Harlem's Adam Clayton Powell Sr. urged aspiring congregants into business on a bigger scale, reminding them, as reported in the Harlem newspaper *Age*, that "no race can ever be rich by saving its money." But there were limits as to how far black enterprise could go. North and South, by law or by tradition, black businesses were forced to operate within the narrow limits of an all-black economy.

At about the same time, a new group of blacks arrived on American shores. Unlike native American blacks, those West Indians who came to this country came by choice. And they came to make money. Many hailed from urban rather than rural backgrounds, which gave them greater familiarity with commerce. And even those from rural areas were more entrepreneurially inclined. Economist Thomas Sowell of the Hoover Institution at Stanford University, perhaps the best known of the conservative black intellectuals, points out that while the American slave remained completely under the control of his white master, West Indian slaves were allowed to tend their own small private plots and sell their surplus in the marketplace.

As a result of these differences in background, West Indians showed a remarkable success in business. By 1901, for example, West Indians owned 20% of Manhattan's black enterprises, twice their percentage in the population. Among the larger were Verbena Perfumery Co., which exported to Central America and the West Indies; and Thomas & Thomas, which imported cocoa and spices from the islands. As with the immigrant groups that preceded them to

PHOTOGRAPHS BY A. J. BERNSTEIN

New York City, these blacks were not shy about their connections to the "old country." And as with the Asian and Hispanic immigrants today, entire families pitched in to run these proudly ethnic businesses, keeping labor costs low and ensuring that the instinct for enterprise would be passed on to the next generation. Several families would sometimes get together, pool their capital in networks known as *susu*, and launch new enterprises. Such virtues as thrift and hard work were part of the West Indian ethos, and leaders such as Jamaican-born Marcus Garvey found willing listeners for their gospel of separatism and self-reliance.

Even today, Robert Maynard, editor and president of *The Tribune*, in Oakland, Calif., recalls how the "Barbadian network" helped his father build a small trucking company in New York City during the 1920s—a company whose profits provided Maynard with his ticket to a successful career in journalism. West Indians, he concedes, started with a different perspective from blacks born in America. "There's something about the immigrant experience that's different," he says. "There's a communal business spirit—something that's outside the experience of most Afro-Americans."

Like Maynard, the sons and daughters of these West Indian immigrants have come to play a disproportionately influential role in black America, initially in business, but over subsequent generations in politics and the professions as well. Census data from 1980 show Jamaicans, for example, with rates of self-employment nearly 60% higher than other blacks. And the median income of all West Indian black families now exceeds that of American whites.

The West Indian experience is the best indication that it is historic and cultural factors, not skin color, that best explain the disinclination toward business among so much of black America—a disinclination that borders on conviction.

Ask Los Angeles businessman Alonzo Wallette. Wallette recalls that a restaurant founded by his great-uncle in Shreveport, La., had become the city's most successful black enterprise by the time his father and some cousins had taken it over during the 1940s. Although whites could not legally sit at tables at the Freeman & Harris Café, the establishment enjoyed a heavy phone-in-and-delivery business from those whites whose desire for spicy Louisiana seafood was stronger than their racial prejudices. Yet this success, recalls Wallette, did not earn a position of honor for his family within the black community. As had been the case since Emancipation, it was the ministers, teachers, and other professionals who defined the black elite.

"My father was never considered as important as the so-called black role models, even though he could buy and sell all of them," recalls Wallette, who now runs his own small defense-electronics firm in Inglewood, Calif. "The black community never quite got the point that business is the name of the game."

This relative lack of prominence for black entrepreneurs also came to be reflected, years later, in the civil rights struggle of the 1950s and '60s. Ministers, lawyers, and other professionals dominated the movement, and their emphasis reflected the aspiration of a black middle class that wanted to break down the barriers to the white establishment. Less emphasis was given to building a strong and separate black economy that would create its own wealth, its own jobs, its own prosperity. The goal was status—legal, social, and even economic—not money. As Atlanta Mayor Andrew Young, a former aide to Martin Luther King Jr., remembers it, "We were almost taught that there was something wrong with being rich."

Eventually, the civil rights movement opened the doors of opportunity for thousands of blacks. Many went on to college educations. And most responded to the preferences of the prevailing black culture by choosing careers in government, the professions, or the corporate side of American business. In 1980, more than half of all black professionals and managers were working for the government—a percentage well above that for the white population. The number of black managers in big corporations grew steadily.

"A lot of my black classmates at Harvard felt they were getting the opportunity that we never had before," recalls E. R. Mitchell Jr., president of a family-owned construction firm in Atlanta. "The idea was to be conservative. You didn't want to blow that chance."

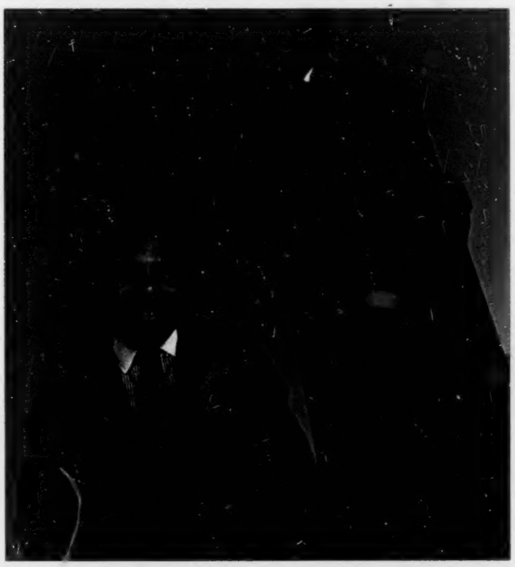
Playing it safe meant starting careers, not businesses. And what followed was something of a brain drain within the black business community. Where once the top accounting, legal, and business talent stayed within the community, now the best and the brightest went on to better things in the white world.

"After integration, a lot of blacks got into the system and made it," says Atlanta florist Alice Bussey, past president of the predominantly black Atlanta Business League. "But now they have become so individualized that they forget they are supposed to be active in the community. That's why we're not as cohesive as we need to be."

At the same time as it was being cut off from much of its potential brainpower, black business also suffered the loss of its traditional base of black customers, especially in the retail sector. Shops that survived the humiliations of Jim Crow died like flies during the 1970s as blacks discovered the wonders of franchised foods, Safeway markets, and chain convenience stores.

"When I was growing up, we had black laundromats and drugstores," recalls Oakland accountant Herman Morris of his boyhood in Little Rock. "But integration changed all that. All of a sudden—hallelujah—you could work and shop with whites. People turned away from black economic institutions because that was a way of getting away from the past." That was true of all blacks to some degree, but middle-class blacks especially. "It was like an insurmountable trade barrier had dissolved overnight," explains Robert Suggs, a researcher at The Joint Center for Political Studies in Washington, D.C. "The traditional black business almost immediately lost its most affluent clientele."

This turning away of customers severely undermined the market position of black entrepreneurs. According to television personality Tony Brown, from 1969 to 1984 the proportion of black income spent in black-owned businesses dropped from 13.5% to only 7%. Black banks and insur-



"There's something about the immigrant experience of West Indians that's different. There's a communal business spirit—something that's outside the experience of most Afro-Americans."

ROBERT MAYNARD,
EDITOR OF *THE TRIBUNE*,
OAKLAND

ance companies, once pillars of the community's economy, were sold or folded. Even such traditional bastions of black business as hair-care products have watched as corporations like Revlon Inc. and Alberto-Culver Co. have increased their share of the black market.

In Columbus, Ohio, for example, Singletary Plaza Mart, the nation's largest black-owned "superstore," went out of business last year due to a lack of community patronage. Although blacks in Columbus spend $2.5 million each week on food, they couldn't be convinced to spend less than a tenth of it, or $200,000, to keep Singletary afloat.

And outside of St. Louis, in predominantly black University City, Sammy Kelley has similar complaints. Two years ago, Kelley left his job as assistant manager of an auto-parts store to open his own auto-parts shop. To finance the start-up, he invested $15,000 and put his house up as collateral for a $60,000 Small Business Administration loan. At first, things seemed to be working out, with sales averaging $13,000 a month. But since two white-owned stores opened nearby, sales have dipped below $9,000—not enough to break even. When he asked a former black customer why he now shopped at the white-owned Auto Shack, the customer said that he wanted to "help out the new guy."

Other ethnic groups tend to be more loyal to merchants of their own kind. Tony Brown refers to a San Francisco study that found that money in the Chinese community circulates there five or six times before leaving the ethnic enclave. The figure is four or five times for Jews. With blacks, money earned in the community usually leaves within minutes. It's no wonder, then, that among black entrepreneurs surveyed by *Black Enterprise* magazine, some 70% consider lack of community support among their greatest problems.

"The Chinese are helping the Chinese, the Haitians help the Haitians, Cubans help Cubans, but blacks are helping everyone else," complains Brown. "We have been conducting the most successful business boycott in American history—against ourselves."

This erosion of traditional markets helps explain the relative lack of success among black businesses. From 1977 to 1982, according to the Census Bureau, the total receipts of the nation's black-owned businesses dropped in constant dollars by more than 9%. As a group, they generated virtually no new jobs. During the same period, the receipts of the rest of the economy jumped by more than 3.5%, while total employment was up by 8%.

Even the best black-owned companies so far have failed to break into the elite. In a recent survey of nearly 600 chief executive officers from the INC. 500 list of the fastest-growing private companies in America, 10 were Asian, 11 were Hispanic, and only 2 were black. Equally revealing, the *Black Enterprise* 100, a ranking of the nation's top black-owned firms, lists only 4 companies with 1985 sales above $100 million. In contrast, the top 15 of the nation's largest Hispanic-owned firms had 1985 sales above the $100-million mark.

"When it comes to business, we're barely out of chains," observes Oakland accountant Herman Morris. "There's a tremendous lack of sophistication in our business community, lack of infrastructure. In the six-mile race with everyone else, we're starting out 6,000 feet behind."

Perhaps no American city so epitomizes the problems faced by blacks and black business as Miami. Miami's is a booming economy in a booming region. And as in so many cities, Miami blacks have had to watch as other, newer minority groups have come along and passed them by on the road to economic security and prosperity.

Back in 1957, when Sonny Wright arrived in Miami, business was lively and vibrant in such black inner-city neighborhoods as Overtown and Liberty City. Independent laundries, restaurants, nightclubs, hotels—many of them black-owned—flourished along the main streets of the steamy resort city. "We had a thriving little business community," Wright remembers. "The black entertainers like Sammy Davis Jr. and Nat "King" Cole stayed in our hotels. Blacks bought from blacks."

Wright himself started out as a laborer, washing cars and doing odd jobs. Over time, he met a number of local businessmen, both black and Jewish, who soon helped him start his own restaurant. "I worked my ass off," Wright remembers. "But I learned a lot. I met the meat man, the bread man, the jukebox man. They became my advisers. I was getting an education in business administration." Eventually, this education paid off. After attending real estate school, Wright left the restaurant business and started his own realty firm. And by the mid-1970s, he was boasting more than $5 million a year in sales.

Now all that has changed. "Ever since integration, everything is gone," says Wright. "The smart guys went to work for the government or moved to the suburbs. Nobody stayed around. Nobody created jobs in the community. Integration set everything downhill for black business in this town."

Today, where once Sonny Wright sat at the lunch counter chatting with his fellow black businessmen, there are only deserted storefronts and empty lots. As the deterioration of the 1970s gave way to the riots of the early '80s, Wright's inner-city real estate trade took a turn for the worse. Sales today, he says, are "a helluva lot less" than what they were a decade ago.

In contrast, the ascendancy of Miami's Cuban community has become the kind of story that renews the great American dream. And, not surprisingly, it is a tale that evokes both envy and resentment among Miami blacks.

Miami's Hispanics are twice as likely to start businesses as Miami's blacks. While most of these are modest businesses, some are more modest than others. One study reported that the average Hispanic company in Miami boasts sales of $84,000, the average black business only $45,000. And you sense the shifting balance at every street corner. In 1960, blacks owned 25% of the service stations in Dade County, for example, while Hispanics owned only 12%. By 1979, the figures were 9% for blacks and 48% for Hispanics.

This entrepreneurial prowess has translated directly into a higher standard of living, not just for those who own businesses, but for the Hispanic community in general.

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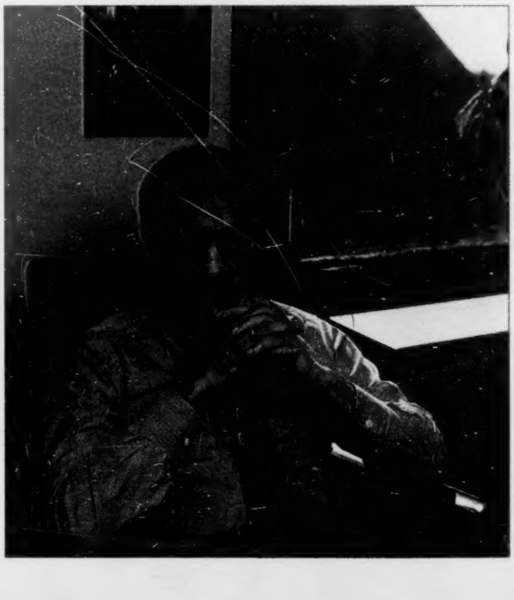
TONY BROWN,
PUBLIC TV HOST,
NEW YORK CITY



In 1979, median family income among Miami's Hispanic community was $16,331, or 80% of the median family income for whites. Among black families, it was $12,710, or 63% of that for whites. Today, black unemployment is near 9%, while the rate for Hispanics is about 6%.

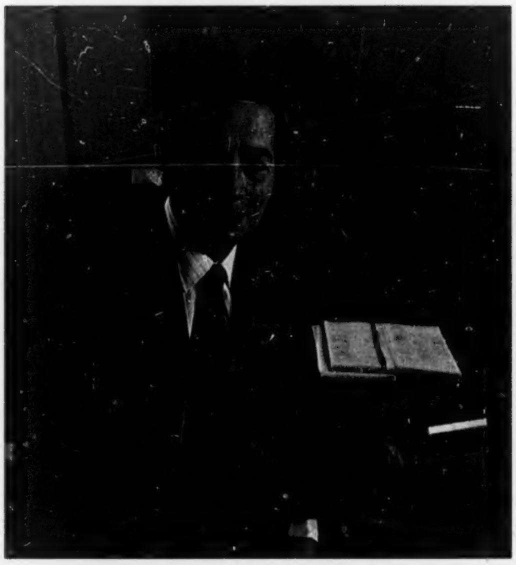
"The black leadership sees success not in an entrepreneurial context," says Tim Mescon, a business school professor at the University of Miami who has conducted studies on both black and Cuban businesses in the Greater Miami area. "It's like their whole development is missing a chapter, the one on achieving equality through their own business development. They still see success as being a teacher or physician, of fitting into the white world that way. Cubans try to make it by working together to build economic strength. And it's worked marvelously."

The difference is perhaps most visible in the area of banking. Blacks have only one small and still struggling bank in South Florida—Peoples National Bank of Commerce—which was purchased by Sonny Wright and others in 1983 only after the white owner of the Miami Dolphins agreed to guarantee the financing. By contrast, Miami's Hispanics control 30 banks, including the Cuban-owned Republic National Bank of Miami, which has grown from a few million dollars in assets a generation ago to more than $800 million today. That's more than the combined assets of the 9 largest black-owned banks in the entire United States.

"When the Cubans came over, they didn't have any inside track," notes an admiring Arthur Hill, president of Peoples National Bank of Commerce. "The whites didn't trust them any more than they trusted us. The difference was that the Cubans took matters in their own hands. They knew each other and took risks for each other. They went out and created their own economy."

Of course, the Cubans who came to Miami were self-selected risk-takers, many with personal savings and entrepreneurial experience to draw upon. But there is no doubt that they pooled their resources effectively and, through their banks, helped multiply those advantages a thousand times over. The bustling garment factories, coffee shops, trading firms, *bodegas* (grocery stores), and gas stations of Miami's Little Havana and Hialeah stand in sharp contrast to the economic torpor of Liberty City and Overtown. These are businesses, by and large, that got their start with Cuban money, and now rely heavily on Cuban customers.

"If a Cuban had a cleaning shop and we knew him, we lent him money," explains Republic National's chairman, Luis Botifoll. "And people in the community bought from that store because the owner was Cuban. Blacks have to do the same. They have to help themselves, their own people. You have to create that sense that there's no reason to go to McDonald's. When you go to your own, you create wealth. Then you have the power."



"Blacks have to help themselves, their own people. You have to create that sense that there's no reason to go to McDonald's. When you go to your own, you create wealth. Then you have the power."

LUIS BOTIFOLL,
CHAIRMAN, REPUBLIC
NATIONAL BANK, MIAMI

Judged by its purely political power, of course, black America has enjoyed progress far greater than any major minority group. Since 1970, the number of black congressmen has doubled to 20, and the number of black mayors is approaching 300. Blacks now control the top offices in Detroit, Newark, Los Angeles, Chicago, Philadelphia, and New Orleans. Not since the Irish has an ethnic group shown such political muscle.

Yet these gains do not seem to have translated easily into economic gains. "When blacks took power, everyone thought the economy would change overnight," says Oakland real estate developer James Johnson, himself a former city manager of Compton, a predominantly black city south of Los Angeles. "But government can only provide leads and open doors. Government cannot create entrepreneurs. It can't turn a ghetto into a nice neighborhood."

The limits of political clout can perhaps best be seen in Atlanta, a city that Southern blacks, like Miami-Dade Chamber of Commerce president Kelsey Dorsett, call "the Black Mecca." Atlanta has long boasted a strong black professional and business class, and, with Morehouse College and Spelman College, has been home to some of the best black colleges in the nation. The city has also served as the training ground for a generation of civil rights leaders, starting with Martin Luther King Jr.

In 1973, Atlanta's black elite gained control of city hall with the election of Mayor Maynard Jackson, and went about, in a systematic way, trying to leverage political power into economic power. Shortly after taking office, for example, Mayor Jackson threatened to hold up a $400-million airport-development project until whites agreed to allow blacks 25% of the airport-design-and-construction contracts. Today, under Jackson's successor, Andrew Young, black firms are supposed to receive 35% of the city contracts. This aggressive strategy has resulted in a major shift in city spending: since 1973, contracts to minority businesses have grown from $41,000 to $20 million. And it has certainly meant a windfall for a number of black construction firms, business service companies, and, through airport concessions, black retailers as well. But there is precious little evidence that it has spawned a new era of entrepreneurship among Atlanta's blacks, or even significantly improved the lot of Atlanta's poor.

Consider, for example, that overall rates of black entrepreneurship in Atlanta are no greater than in such cities as Houston, Baltimore, and Dallas, where city halls are still very white. And in Atlanta, even those black entrepreneurs who have benefited from the city's tough minority participation policies complain that, in dealing with white companies on nongovernment business matters, they are still treated like second-class companies. "I go to the trade shows and start handing out my cards to 75 or 100 potential clients," says black contractor E. R. Mitchell Jr. "I follow up with them. But nothing ever happens."

Fourteen years of political power have also done little to raise the relative position of Atlanta's black underclass. The income differential between the city's black and white families remains much as it was. And the city's rate of black poverty is no better than the national average. Furthermore, much of the economic growth in Atlanta has now shifted to the suburbs, beyond the range of most inner-city workers and beyond the reach of black political power. "Blacks might control the city," observes Cornell McBride, president of M&M

"TAKING CARE OF OUR OWN"

Black networks spring up to help the "best and the brightest" start new firms and lure black customers to black businesses.

For most of his working life, Dwayne Wynn has seen his city move forward—and his own people left behind. But today, Wynn, an insurance systems administrator and owner of an import business, believes that things are changing. Having seen the growing power and affluence of the highly cohesive Cuban business community, Wynn believes Miami's blacks are finally beginning to emulate their Hispanic neighbors by building a strong business network among black entrepreneurs and professionals.

"For years, there's been a void in our community," says Wynn, who now heads The Network Inc., which has 800 members. "This way, we can start to make the connections between ourselves that haven't been made in the past."

There are other such efforts. The American Health and Beauty Aids Institute is made up of 22 minority-owned companies that give research advice to black businesses in an industry that has traditionally had a strong black presence. And in New York City, the Coalition of Black Professional Organizations seeks to create a critical mass of economic clout within the black business community—its own old-boy network. "We know that the ability to cut business deals is based on who you know," says attorney Darrell Gay, chairman of the Coalition. "It's the way it works for the *Fortune* 500 executives." There are similar groups in Washington, D.C., and Atlanta.

Miami executive Dwayne Wynn
Creating an old-boy network for blacks

Perhaps one positive sign of change has been the number of black managers and professionals from big corporations showing up at black network meetings and "business card exchanges." Many admit now that they feel their opportunities are limited within the confines of these largely white institutions. Indeed, a recent National Urban League study found that only 13% of black corporate managers feel they have a "high" potential for promotion within their firms.

"The game is rapidly changing, from working within the system at major companies toward ownership and creating enterprises that create wealth, jobs, and real power," says an optimistic Arthur J. Hill, president of Miami's minority-owned Peoples National Bank of Commerce. "The young technocrats are beginning to understand how real wealth is accumulated in this country."

Black enterprise needs entrepreneurs—that's one problem. It also needs customers. And in New York City, TV commentator Tony Brown is working on that, too. His "Buy Freedom" campaign aims to persuade black consumers to spend their dollars on companies that are black-owned or employ large numbers of black workers. Brown points out that if American blacks were a separate nation, theirs would be the ninth largest economy in the world. If they would shift a fraction of their $200 billion in spending each year to black enterprise, the results, he argues, would be spectacular.

"This is the essence of the American way," argues Brown. "It's worked for the Jews, the Cubans, and the Asians. You can't keep waiting around, blaming white people and racism for all your problems. If you wait around for the last racist to die, you'll be waiting around an awful long time. And I think we've already waited long enough."

Products Co., a maker of ethnic hair-care products and one of Atlanta's largest black manufacturing firms, "but they can't stop whites from moving the industry."

Atlanta is not unique. Blacks in Oakland find themselves in control of city hall, and even of the city's major newspaper. But political progress has not been matched by economic progress. The mayor and the newspaper have not persuaded blacks to deposit their money in the Bank of Oakland, where the majority of stock is minority owned, rather than the giant Bank of America. Nor have they been very successful in luring bright young black professionals away from Clorox Co. or Safeway Stores Inc. so that they could start their own electronics firms downtown. Developer Jim Johnson despairs that while Oakland blacks may view politics as a collective enterprise, they still see business as an "every man for himself" proposition. Economic growth in Oakland today lags far behind that of its surrounding white suburbs.

Approximately 400 miles to the south, in Los Angeles, which elected a black mayor 14 years ago and boasts the single largest concentration of black businesses, blacks still lack economic clout. One good indication is the absence of even a single black-owned commercial bank. Back in 1982, Alonzo Wallette tried to start one, figuring that surely there was $3.5 million to be raised from the scores of wealthy black entertainers and athletes who call Los Angeles their home. But Wallette rarely got past the celebrities' agents, and he was forced to abandon the effort, bitterly disappointed.

"It's still the damn slave mentality," complains developer Bondie Gambrell, who helped Wallette in the search for black capital. "It's the house nigger and the field nigger. Those that have don't want to let the guys out in the field in on the goodies. Everyone seems to want to be the only black allowed in. They don't understand that there's a big enough world out there for everyone."

Gambrell casts an admiring eye at Los Angeles County's Asian community—about half the size of the black community—which today controls some 30 commercial banks in and around the city. The Asians have used their money collectively to start and expand businesses, educate their youth, and even send some of what's left over to relatives abroad. Korean-Americans, for example, who represent only 1% of the population, own nearly 5% of all retail businesses in the county. And more recently, Koreans have begun buying up businesses and real estate in such traditionally black areas as Watts and South-Central Los Angeles. The move has spawned new racial tension in the city. Some blacks have even begun to boycott Asian-owned businesses as a sort of silent protest against the aggressive "foreign" businesspeople in their midst.

"Blacks just don't do what the Koreans do," says Gambrell as he looks wistfully over the city from his posh hillside home. "They band together and raise capital. They work hard and move into our neighborhoods. But it's not their fault. They've figured out that the real color of freedom is green." □

Research assistance for this article was provided by Hope Tompkins.

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Executive Forum: A New Column By Growth Company Leaders
On Innovation: An Interview With Federal Express's Fred Smith

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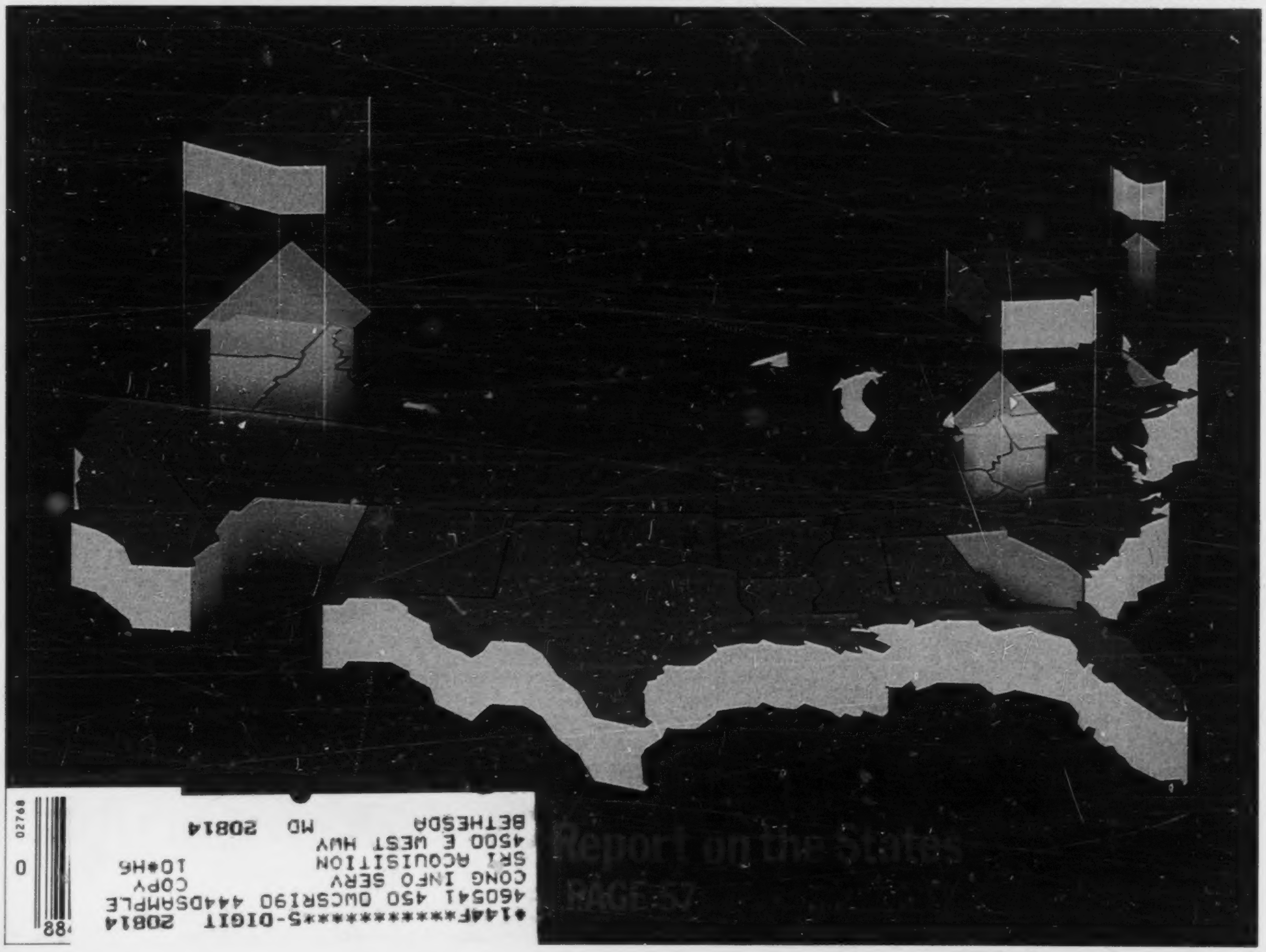
GROWING PLACES

The Best (and Worst) Business Climates in America



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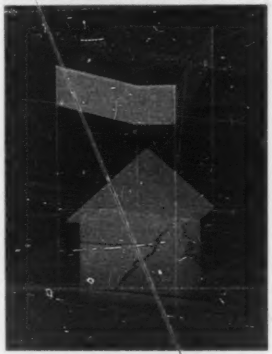

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work of corporate structures. Kennedy's attempt to create a culture was, in reality, an experiment in formulating a nonhierarchical corporate structure. But both corporate culture and corporate structure must be managed within the context of the business environment and corporate goals.

Corporate leaders should be wary of this type of drugstore behavioral science during a time when the effective utilization of human resources is critical for both profits and corporate survival.

J. Steven Picou
Professor
Department of Sociology
Texas A&M University
College Station, Tex.

Allan Kennedy's candor in discussing the birth pains of Selkirk is to be applauded. Seldom do we get to hear from the horse's mouth the dark side of what are all too often seen as quick fixes to the numerous ills plaguing corporate America. Nevertheless, readers may have come away with the impression that it was only Kennedy's *approach* that caused his theory to fail; that given a second chance, Kennedy and his crew might just manage to pull it off.

Perhaps. But three key points need to be emphasized: there is no such thing as an organization with no culture; actions speak louder than (management's) words; and management must be obsessed with corporate culture in order to make it consistent with the organization's mission.

Duncan B. Sutherland Jr.
Vice-President, Director of Officing
CRS Sirrine
Houston

SETTING THE RECORD STRAIGHT

I am writing in regard to "Why There Aren't More Women in This Magazine" (July). I am the local Chamber of Commerce representative who is referred to in the story. I am also chairman of the Small Business Council of the Grand Rapids Chamber of Commerce. The Business Woman of the Year honoree, Dorothy L. Zimdar, is a member of our Chamber and was recommended by our Small Business Division to the state, which then selected her to be Michigan's businessperson of the year.

I was asked to stand in for our local congressional representative to present a resolution honoring Mrs. Zimdar. Being a part of the selection process, I am more than familiar with her company, Frames Unlimited. My comment was to the effect that, while I was very familiar with her company, I had never met her personally. I went on to state that this indicates Grand Rapids is no longer a small town.

Neither Mrs. Zimdar nor I were embarrassed about any of the comments that I made in presenting her the resolution. I object strongly to the impressions that may have been left in your readers' minds concerning the Michigan presentation.

Richard F. Fabiano
Vice-President
Hughes Plastics Inc.
St. Joseph, Mich.

Correction:

A chart in "INC.'s Annual Compensation Survey," (September, page 52) incorrectly shows executive compensation by company revenue. The revenue ranges "$5 million to $9.9 million" and "$10 million or more" were inadvertently reversed, as were the ranges of "$250,000 to $499,000" and "$500,000 to $999,999."

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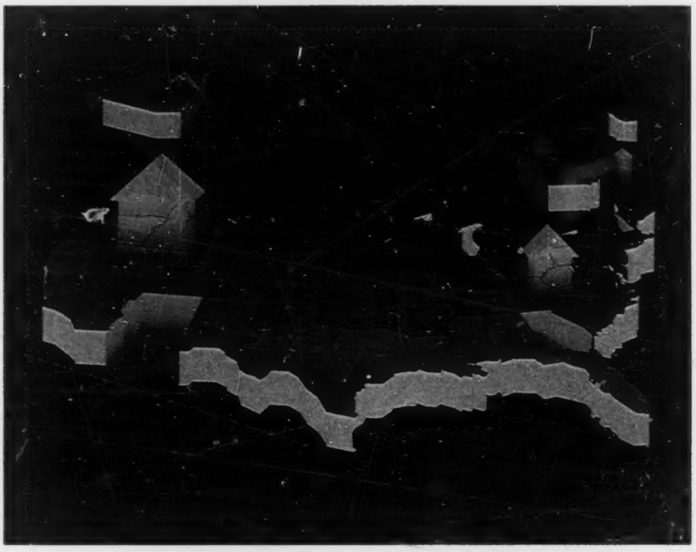

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REPORT ON THE STATES

GROWING PLACES

INC.'s new survey finds the most dynamic state economies in the most unlikely spots.

BY JOSEPH P. KAHN

CENTER OSSIPEE, N.H., IS NOT THE sort of town that makes you think instantly of twenty-first-century America. Deserted by the railroad and skirted by Route 16, the main gateway to the Mount Washington Valley vacationland, it is a small, quiet town lying on the economic fringes of a small, quiet state: the sort of place future generations might drop in on to remind themselves of what life was like in a different, less harried era. In a downtown comprising mostly a post office and a doughnut shop, however, sits the headquarters of a company that symbolizes more the future of the American economy than its past.

"People wander in here asking if we sell antiques," says Douglas Treat, chief executive officer and co-founder (with wife, Nancy) of Yankee Concepts Inc., a state-of-the-art bar-code label manufacturer supplying several *Fortune* 500 clients and the federal government. "We never see any of our real customers. But that's the reason we moved here in the first place—to be in a small town where we can take the time to know people, to have a positive impact on an entire community. In a lot of ways, the whole state's like that."

Treat hastens to add that, because Yankee Concepts does all of its orders computer-to-computer and all its product delivery via overnight mail, being off the beaten track hardly means being out of the commercial mainstream.

"We compete directly with the biggest firms in our industry," he avers, "and we beat 'em to death." With his five-year-old company already grossing around $500,000 annually, Treat admits one of his biggest challenges is budgeting enough time for the community activities and recreational pursuits that steered him toward small-town living in the first place.

Compared with a modest hamlet like Center Ossipee, a more obvious indicator of where America is going—and growing—is Norcross, Ga., about 20 miles from the heart of downtown Atlanta. A sprawling tableau of shopping malls and industrial parks, Norcross is home base for numerous fast-growth Georgia companies; chief among them is Hayes Microcomputer Products Inc., one of the world's most successful modem manufacturers.

"I knew two things from the outset," says co-founder Dennis Hayes, a Spartanburg, S.C., native and Georgia Institute of Technology grad. "First, that I wanted to

RATING THE STATES 1986:
NEW JOBS, NEW COMPANIES, AND THE CLIMATE FOR GROWTH

Rank/State	No. New Jobs (in thou.)	Growth in Jobs	Score	No. New Companies	Business Birth Rate	Score	No. Fast-Growth Companies	% Fast-Growth Companies	Score	Total Score
	1	2	3	4	5	6	7	8	9	10
1. **ARIZONA**	280.8	27.06%	10.00	1,795	4.07 %	10.00	389	3.29 %	9.52	29.52
2. **ALASKA**	37.5	20.70	8.43	293	2.92	6.41	72	3.23	9.28	24.12
3. **TEXAS**	402.1	6.38	4.89	10,379	3.88	9.41	2,004	3.07	8.64	22.94
4. **NEW HAMPSHIRE**	86.1	22.34	8.83	412	2.18	4.09	118	3.29	9.52	22.44
5. **GEORGIA**	425.0	19.57	8.15	2,725	2.94	6.47	579	2.77	7.44	22.06
6. **MARYLAND**	226.5	13.78	6.72	1,772	2.69	5.69	441	3.11	8.80	21.21
7. **FLORIDA**	747.3	19.72	8.19	6,107	3.04	6.78	1,337	2.43	6.08	21.05
8. **DELAWARE**	37.5	15.02	7.02	199	2.11	3.88	58	3.35	9.76	20.66
9. **MASSACHUSETTS**	323.1	12.45	6.39	2,150	2.07	3.75	562	3.41	10.00	20.14
10. **VIRGINIA**	374.4	17.79	7.71	2,108	2.67	5.63	440	2.60	6.76	20.10
11. **CALIFORNIA**	1,253.3	12.76	6.47	12,511	2.70	5.72	3,144	2.83	7.68	19.87
12. **UTAH**	74.9	13.49	6.65	673	2.50	5.09	170	2.75	7.36	19.10
13. **COLORADO**	121.3	9.28	5.60	1,897	3.05	6.81	417	2.51	6.40	18.81
14. **SOUTH CAROLINA**	150.8	12.97	6.52	1,129	2.56	5.28	211	2.33	5.68	17.48
15. **NORTH CAROLINA**	336.3	14.38	6.87	2,002	2.33	4.56	387	2.36	5.80	17.23
16. **TENNESSEE**	191.8	11.40	6.13	1,671	2.44	4.91	356	2.40	5.96	17.00
17. **NEW MEXICO**	50.0	10.66	5.95	515	2.29	4.44	141	2.51	6.40	16.79
18. **NEW JERSEY**	384.0	12.70	6.45	3,043	2.15	4.00	628	2.48	6.28	16.73
19. **CONNECTICUT**	155.7	11.02	6.04	1,151	1.90	3.22	303	2.69	7.12	16.38
20. **NEVADA**	48.1	12.00	6.28	463	2.73	5.81	90	1.97	4.24	16.33
21. **VERMONT**	28.8	14.31	6.85	159	1.50	1.97	53	2.66	7.00	15.82
22. **RHODE ISLAND**	35.2	9.12	5.57	311	1.56	2.16	93	2.85	7.76	15.49
23. **NEW YORK**	588.4	8.22	5.34	6,679	1.97	3.44	1,552	2.44	6.12	14.90
24. **MICHIGAN**	324.7	10.16	5.82	2,839	1.93	3.31	615	2.19	5.12	14.25
25. **INDIANA**	173.9	8.65	5.45	1,746	2.08	3.78	321	2.15	4.96	14.19
26. **MAINE**	56.8	14.23	6.83	271	1.41	1.69	78	2.27	5.44	13.96
27. **WASHINGTON**	160.7	10.34	5.87	1,683	2.06	3.72	371	1.86	3.80	13.39
28. **ALABAMA**	115.5	8.78	5.48	1,142	2.19	4.13	193	1.83	3.68	13.29
29. **OHIO**	272.2	6.61	4.95	3,264	1.89	3.19	701	2.17	5.04	13.18
30. **MINNESOTA**	147.9	8.72	5.47	1,462	1.83	3.00	320	1.99	4.32	12.79
31. **MISSOURI**	200.5	10.63	5.94	1,765	1.86	3.09	337	1.83	3.68	12.71
32. **PENNSYLVANIA**	142.2	3.11	4.08	3,349	1.71	2.63	716	2.28	5.48	12.19
33. **ARKANSAS**	96.4	13.51	6.65	688	1.74	2.72	142	1.60	2.76	12.13
34. **HAWAII**	26.4	6.58	4.94	364	1.93	3.31	81	1.88	3.88	12.13
35. **LOUISIANA**	–54.8	–3.38	2.48	1,676	2.41	4.81	345	2.11	4.80	12.09
36. **KANSAS**	34.5	3.72	4.23	983	1.98	3.47	193	1.99	4.32	12.02
37. **KENTUCKY**	97.9	8.51	5.42	1,180	2.05	3.69	191	1.63	2.88	11.99
38. **ILLINOIS**	86.3	1.87	3.77	3,676	1.76	2.78	848	2.12	4.84	11.39
39. **WISCONSIN**	108.7	5.89	4.77	1,424	1.68	2.53	305	1.93	4.08	11.38
40. **OREGON**	69.4	7.27	5.11	1,009	1.80	2.91	241	1.69	3.12	11.14
41. **MISSISSIPPI**	49.7	6.27	4.86	643	1.87	3.13	102	1.48	2.28	10.27
42. **IDAHO**	26.0	8.51	5.41	328	1.77	2.81	59	1.40	1.96	10.18
43. **OKLAHOMA**	–69.0	–5.62	1.92	1,421	2.24	4.28	290	1.82	3.64	9.84
44. **NEBRASKA**	42.0	6.99	5.04	499	1.51	2.00	100	1.49	2.32	9.36
45. **SOUTH DAKOTA**	16.7	7.43	5.15	177	1.23	1.13	38	1.32	1.64	7.92
46. **WEST VIRGINIA**	–23.1	–3.80	2.37	474	1.93	3.31	63	1.45	2.16	7.84
47. **MONTANA**	6.2	2.35	3.89	285	1.46	1.84	60	1.18	1.08	6.81
48. **IOWA**	29.3	2.83	4.01	659	1.19	1.00	133	1.30	1.56	6.57
49. **NORTH DAKOTA**	0.3	0.12	3.34	187	1.38	1.59	31	1.16	1.00	5.93
50. **WYOMING**	–20.1	–9.35	1.00	205	1.80	2.91	43	1.41	2.00	5.91

WHAT THE RANKINGS MEAN

In years past, INC.'s annual Report on the States ranked the business climates of the 50 states through a formula that took into account roughly a dozen variables, ranging from average tax and wage levels to the number of state-funded programs supporting small business. This year's ranking forsakes the controversial notion of business climate, and instead measures how a state is actually doing in stimulating entrepreneurial activity and economic expansion. A state's position on the list reflects its economy's relative success, over a four-year period, in three areas: job generation, new-business creation, and young-company growth.

■ **JOB GENERATION**. The figures in columns 1 and 2, from the federal government's Bureau of Labor Statistics, indicate a state's gain (or loss) in private-sector and civilian public-sector employment between February 1982 and February 1986.

■ **NEW BUSINESSES.** The figures in column 4, compiled for INC. by Cognetics Inc., of Cambridge, Mass., include all companies founded in 1982 or later that had at least 10 employees by January 1986. The "birth rate" in column 5 is this number divided by the total number of business establishments in the state.

■ **YOUNG-COMPANY GROWTH.** Column 7, also compiled by Cognetics, lists all the companies founded in 1978 or later that registered a growth index of at least 20 between the beginning of 1982 and the beginning of 1986. What's a growth index? Simply the company's *absolute* growth in employment multiplied by its *percentage* growth in employment (expressed as a decimal). Say you employed 50 people in January 1982 and 75 people in January 1986. Your growth index would be 25 X .50, or 12.5—not enough to make the list. Figuring growth in this way eliminates any bias in favor of large companies (which might have high absolute numbers) or small (which might have high percentage numbers).

Column 8 is the number of these young, fast-growing companies divided by all a state's business establishments founded in 1978 or later.

■ **SCORES.** A state's scores (columns 3, 6, and 9) are computer-generated rankings that reflect how it stands in relation to all the other states. The top state in any one category gets a 10, the bottom state a one. Every other state is assigned a number reflecting its relative position on an imaginary scale between the top and the bottom.

All scoring is based on a state's ranking in the percentage columns, not in the absolute-numbers columns. Column 10—the bottom line, so to speak—is the sum of the other three "score" columns.

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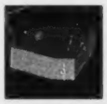
live in or near Atlanta, the one southern capital with all the amenities of a major-league city. And second, that I wanted to start what would become a large company. The range of resources we have here are the real keys to that future growth."

As distinct as the towns and states they inhabit, Treat and Hayes symbolize something new about the pattern of economic growth in the United States—a pattern captured by, and reflected in, INC.'s 1986 ranking of the nation's hottest spots for growing businesses. Unlike INC.'s previous reports on the states, this year's ranking focuses exclusively on three variables. In the four years from 1982 to 1986, how many new jobs were created in a state? How many new companies were founded? And how many young companies experienced significant growth? Taken together, these three measures provide a strong indication of how successful each state has been at nurturing new businesses and encouraging expansion. The chart on page 58 reports the results. Accompanying the chart is a note explaining definitions, cutoff points, and other methodological matters.

Some of the states at the top of the list are those you would expect to find there: Alaska (#2) and Texas (#3), both hit hard by the oil crunch of the last 12 months but still proven performers over the four-year period; Maryland (#6) and Virginia (#10), each aided by a generous influx of federal dollars; and such perennial high-tech fliers as Massachusetts (#9) and California (#11). But the presence of New Hampshire (#4), Georgia (#5), and, above all, top-ranked Arizona in the list's First Five suggests a diversity in the geography of economic growth that has gone unrecognized by most politicians and pundits. Without California's Silicon Valley or Massachusetts's Route 128, without vast mineral resources or indeed much of anything else to build on, these three states have somehow constructed entrepreneurial economies that handily outstrip their sovereign competitors. A look at the ingredients of their success reveals a surprising variety of paths to prosperity—and a glimpse of economic futures both more diverse and more dispersed than anything in the past.



ARIZONA: POWER FROM THE PEOPLE

In 1969, LeRoy Ellison, a young Harvard graduate, left his job at General Electric Corp. to start Capex Corp., one of the Phoenix area's first software companies. Knowing little about business, having no local venture capital sources to turn to, Ellison still managed to cobble together the financing for a company that would grow to about $20 million before its acquisition, in 1982, by Computer Associates International Inc. Since then, Ellison has gone on to become Arizona State University's first Entrepreneur-in-Residence and to lend his support to numerous other high-tech ventures.

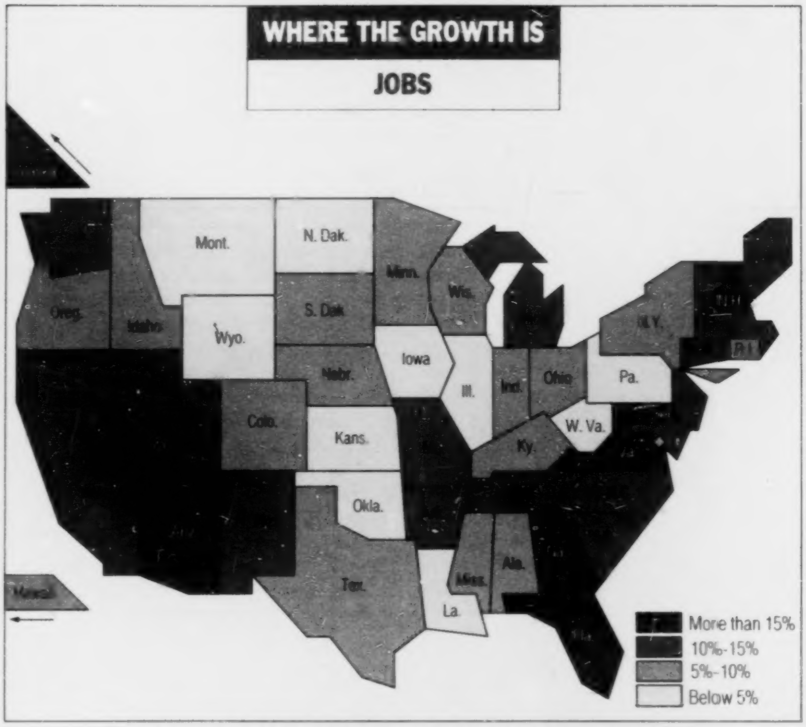
"It isn't too surprising that we have a significant number of start-ups here right now," says Ellison. "This state has a very favorable regulatory climate, our tax rates are reasonable, and our labor laws are not nearly as strict as, say, California's. Plus we've got a huge big-company presence in computers and semiconductors, and that tends to spin off a lot of new ventures." But the critical factor, he adds, may be people—and the amenities like housing and sunshine that Arizona can provide them with.

"I'll tell you," he says, "it's an asset to locate in a community where people want to live. About one in 10 can't take the heat here, but the other 9 get extremely charmed with our circumstance."

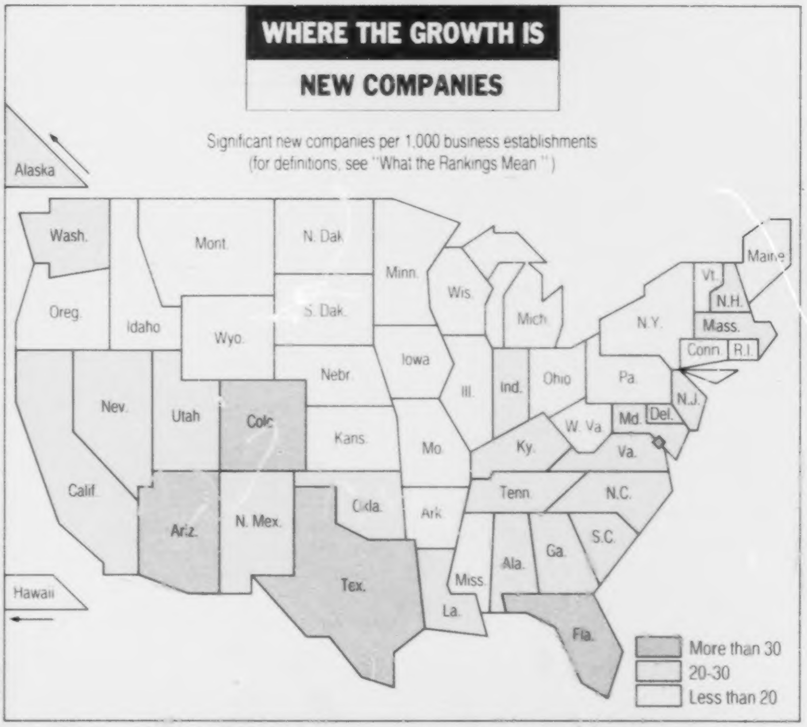
So charmed, indeed, that the state's population growth between 1982 and 1986 hit 10.2%, tops in the continental United States. Arizona has long been known for its appeal to comfort-seeking retirees. But in recent years it has begun to attract younger professionals and businesspeople looking for opportunities—people like Edward Beauvais, who five years ago launched America West Airlines Inc., a Tempe-based regional carrier that now has some 3,000 employees. Beauvais and his fellow immigrants have helped push the state to the top of the chart in new-job growth percentage (27%) and business birth rate (4%).

This growth has, moreover, been remarkably diverse. Arizona has literally been reinventing its economy over the past two decades or so, balancing the demise of its mining and agricultural concerns (the famous "Four Cs" of copper, cattle, cotton, and citrus) with a quantum leap ahead in areas like aerospace and high tech, construction, and finance-insurance-real estate. "Nobody is capable of reversing the decline in, say, the domestic copper market," notes Rita Carrillo, director of Arizona's Department of Commerce. "That condition is permanent. But we've been able to give economic development a much broader perspective, beyond the major manufacturing facilities and more into service industries, financial institutions, tourism, etc."

Economic growth and diversity have been helped along by the "favorable regulatory climate" that is a favorite of state boosters everywhere—but that, in Arizona's case, seems more than just a cliché. This month, for instance, Arizona becomes only the third state in the nation to allow local banks to be owned by out-of-state institutions. The development has already touched off a wave of banking acquisitions, and the hope is that it will increase the pool of capital available to local companies. "I don't see how it will hurt," reflects James S. Lee, president of the Phoenix-based Thunderbird Bank, a leader in the small-company lending market. "Certainly the consumer


WHERE THE GROWTH IS
JOBS
Mont.
N. Dak.
Minn.
Wis.
Oreg.
Idaho
Wyo.
S. Dak.
N.Y.
R.I.
Iowa
Nebr.
Ill.
Ind.
Ohio
Pa.
Colo.
Kans.
W. Va.
Ky.
Okla.
Tex.
Miss.
Ala.
La.
Hawaii
More than 15%
10%-15%
5%-10%
Below 5%

NET GROWTH IN EMPLOYMENT, 1982–1986: high job-growth figures go hand in hand with high rankings on the overall chart, as evidenced by Arizona (#1), Alaska (#2), New Hampshire (#4), Georgia (#5), Florida (#7), Delaware (#8), and Virginia (#10).


WHERE THE GROWTH IS
NEW COMPANIES
Significant new companies per 1,000 business establishments
(for definitions, see "What the Rankings Mean")
Alaska
Wash.
Mont.
N. Dak.
Minn.
Maine
Oreg.
Idaho
Wyo.
S. Dak.
Wis.
Mich.
N.Y.
Vt.
N.H.
Mass.
Conn.
R.I.
Iowa
Nebr.
Ill.
Ind.
Ohio
Pa.
N.J.
Nev.
Utah
Colo.
Kans.
Mo.
Ky.
W. Va.
Md.
Del.
Va.
Calif.
Okla.
Ark.
Tenn.
N.C.
Ariz.
N. Mex.
Tex.
Miss.
Ala.
Ga.
S.C.
La.
Fla.
Hawaii
More than 30
20-30
Less than 20

NIGEL HOLMES

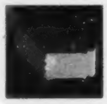
SIGNIFICANT NEW BUSINESSES are companies founded in 1982 or later, with at least 10 employees by January 1986. The "business birth rate"—the number of these companies per 1,000 business establishments in a state—is highest in the Southwest and Southeast, lowest in the Midwest.

will benefit from more competition in products and services. I don't know who'll go after the small-business market, but when you look at the rise of venture capital concerns here over the last three years, investment in growth companies seems like a pretty strong trend."

The reins on other capital sources have loosened as well, thanks in part to attitudinal changes within the securities division of the Arizona Corporation Commission. Stiffening its merit-review regulations in the early 1970s after a series of well-publicized bankruptcies, the local equivalent of the Securities and Exchange Commission once reflected the opinion that, as Gregory C. Michael puts it, "any Arizona company needing money [via public markets] must be run by a bunch of crooks."

Michael is vice-chairman of American Surgery Centers Corp., in Scottsdale (#29 on the 1986 INC. 100). "They took a very protective attitude toward the local citizenry," he explains, noting that ASC's initial offering of $2 million in 1980 was shielded from home-state investors for about 30 days—precisely long enough for the value of the stock to triple. "Sometimes that hurts the same people it was supposed to help. But that mentality has really changed in the last four years. The venture capital's here, there's a more liberalized outlook, the governor [Bruce Babbitt, rumored to have his eye on the Democratic national ticket] is very pro-business. . . . Right now, Arizona is a fantastic place to be in a start-up mode."

The state's position at the top of the 1986 INC. list is testament to that. Will it stay there or will it prove to be a flash in the pan? "We're a young state," points out Arizona's chief economist, Ed Sloat, "and young people do not move around haphazardly. They go where they think the opportunities are. What California was 20 years ago, Arizona is today."



GEORGIA: ALOFT ON THE ATLANTA AIRLIFT

Tim Titus can tell you about airplanes. Eight years ago he quit his job as national sales promotional manager for Coca-Cola Co. ("a great company to work for, but I'd become an expert, and when you're an expert in a company as big as Coke, you're effectively retired"), started his own specialty-products firm in his basement, and began logging a lot of air miles looking for accounts. The coupons were nice, he says, but the frequent flying didn't always prove cost-effective.

"When you walk in blind to a company like Anheuser-Busch," remembers Titus, "it can take a long, long time before they'll buy anything from you. I must've made 20 trips to St. Louis before I closed my first sale, and that ate up a hell of a lot of cash."

Now that his company, Markatron Inc., in Norcross, has taken off (twice on the

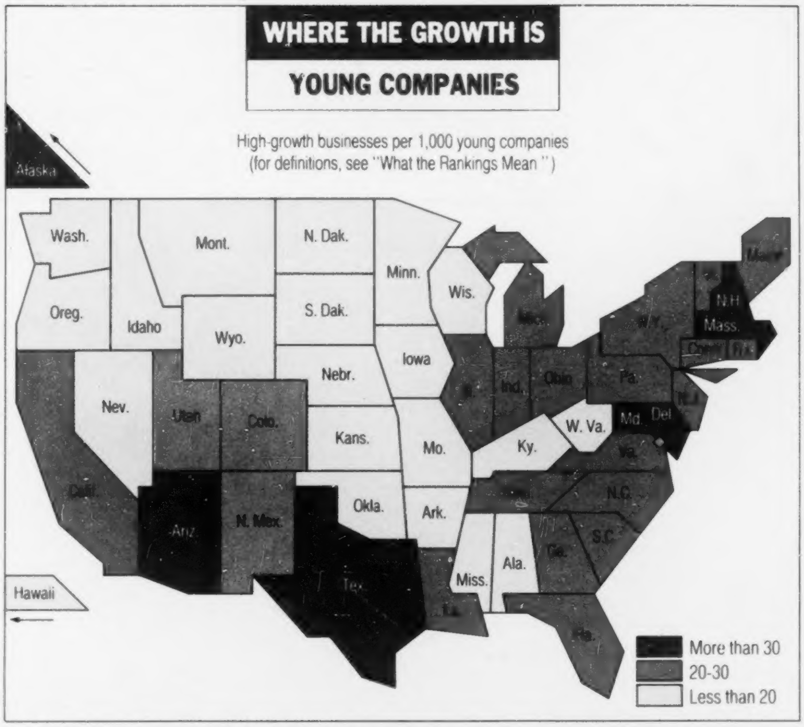
INC. 500, it currently has annual sales of about $5 million), Titus doesn't work the friendly skies quite so much anymore, even though success has still left him strapped for working capital. Instead, he stays near Markatron's parent city—Atlanta, hub of the Southeast, cradle of the New South, and the main turbine driving Georgia's economic engine.

"The way manufacturing's going, it can be done almost anywhere in the world," posits Titus, sitting in an office adorned with samples of his product line: coolers, mirrors, jewelry, and dozens of other collectibles stamped with the familiar logos of Budweiser and Coke. "The real survivors will be [marketing firms] that package and distribute the merchandise, and that just plays to our strength down here. Atlanta will become the home base for more and more distribution companies that thrive on the advantages of this transportation system."

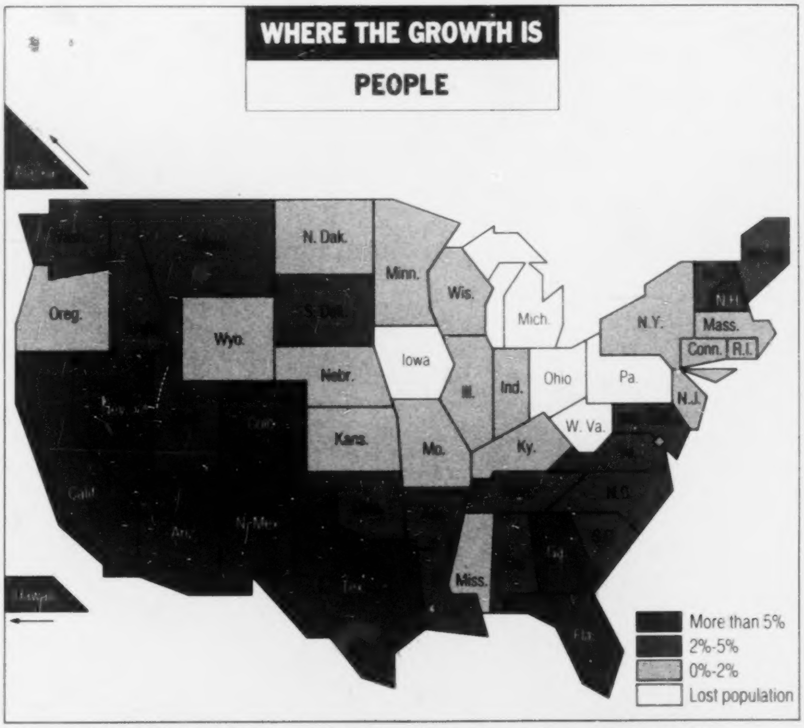
Already, it's home to more and more people. Black and white, foreigner and native, they are migrating to the South's most socially and racially integrated city in record numbers (over 90,000 new Atlantans last year alone). That influx has helped Georgia, the economic darling of Dixie, to spawn 425,000 new jobs over the past four years. So great is the stream of opportunity-seekers that Atlanta, blessed with an absence of natural boundaries, may someday metamorphose into one solid city all the way to Lake Lanier, 50 miles to the north.

To Gov. Joe Frank Harris, the evolution of his state's economy from an agricultural to an industrial base is as broad and straight as the runway at Hartsfield Airport—and as cosmopolitan in its implications. "This state has always been aggressive about bringing foreign business here. There are 30 international banks in Atlanta alone [half a decade ago there were only 5] and about 60,000 Georgians employed by foreign firms." But, he adds, "We've [also] had excellent success getting small and midsize companies to come here and grow with us—in fact, 60% of our growth comes from companies started right here."

Harris's fellow politician-with-a-passport, Atlanta mayor Andrew Young, is already known as the only municipal CEO with a fully developed foreign policy. But Harris, Young, and their colleagues must be doing something right: in 1985, 20% of the 219 companies locating in metropolitan Atlanta had overseas addresses. Georgia's public-education system, boosted by last year's $1-billion legislative commitment, is rapidly spawning a research network of national renown at its upper ends. "There's been a tenfold increase in funded research here," notes Dennis Hayes of Hayes Microcomputer. "I interview engineers who say they don't know if they can come here, because we don't have a technical community. Well, we do. And our universities are getting stronger in disciplines like information


WHERE THE GROWTH IS
YOUNG COMPANIES
High-growth businesses per 1,000 young companies
(for definitions, see "What the Rankings Mean")
Alaska
Hawaii
Wash.
Oreg.
Idaho
Mont.
Wyo.
N. Dak.
S. Dak.
Nebr.
Minn.
Iowa
Wis.
Mich.
Nev.
Utah
Colo.
Kans.
Mo.
Calif.
Ariz.
N. Mex.
Okla.
Ark.
Tex.
La.
Miss.
Ala.
Ga.
Fla.
S.C.
N.C.
Va.
W. Va.
Ky.
Ind.
Ohio
Pa.
N.Y.
Md.
Del.
N.J.
Conn.
R.I.
Mass.
N.H.
Maine
More than 30
20-30
Less than 20

FAST-GROWING YOUNG COMPANIES are businesses founded in 1978 or later with a "growth index" of at least 20 between 1982 and 1986. Regional leaders: the Southwest, Southeast, New England, and Middle Atlantic states—plus, surprisingly, the industrial heartland, Illinois through Pennsylvania.

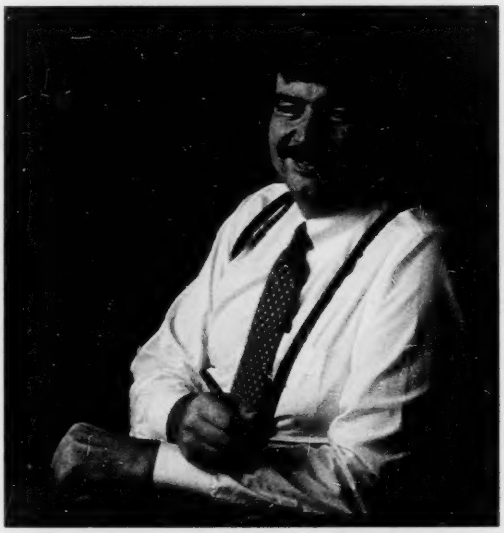

WHERE THE GROWTH IS
PEOPLE
N. Dak.
Minn.
Wis.
Mich.
Oreg.
Wyo.
S. Dak.
Iowa
Ill.
Ind.
Ohio
Pa.
N.Y.
Mass.
N.H.
Conn.
R.I.
N.J.
Nebr.
Kans.
Mo.
Ky.
W. Va.
Nev.
Colo.
Calif.
Ariz.
N. Mex.
Tex.
Miss.
Ga.
S.C.
N.C.
Fla.
More than 5%
2%-5%
0%-2%
Lost population

POPULATION GROWTH, 1982-1986, reflects the well-documented migration from northeastern and North Central states to the Sunbelt. The exceptions that prove the rule: Alaska (#2) and New Hampshire (#4). Five states, mostly in the Sunbelt, lost population over the four-year period.

America West Airlines

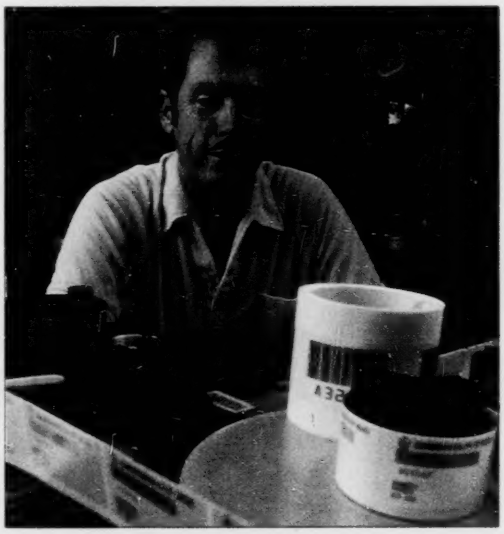
"There were no obstacles to getting started in Arizona. The attitude was, if you see your opportunity, you're free to pursue it."

EDWARD BEAUVAIS,
AMERICA WEST AIRLINES,
TEMPE, ARIZ.



"I knew at the outset that I wanted to live in or near Atlanta, the one southern capital with all the amenities of a major-league city."

DENNIS HAYES,
HAYES MICROCOMPUTER,
ATLANTA



"We never see any of our real customers. But that's why we moved here in the first place—to be in a small town. The whole state's a little like that."

DOUGLAS TREAT,
YANKEE CONCEPTS,
CENTER OSSIPEE, N.H.

systems and marketing, areas you have to be able to draw on when you're in the business of developing growth companies."

Measured against Atlanta, of course, much of the rest of Georgia looks poor and rural by comparison. Not so long ago, however, Atlanta itself was just another layover spot on the way to somewhere else. Now it has reached what economists call the self-sustaining level, where growth only leads to more growth.

How can that be? Go ask Randy Perkinson. Perkinson, 33, co-founder and president of Compack Inc., an Atlanta-based packaging-design firm, started his company in 1980 with 4 employees and 500 square feet of work space. Today, he employs 52 people, occupies 18,000 square feet, and serves such major firms as Coca-Cola, Georgia Pacific, and Kimberly-Clark. Atlanta, says Perkinson, is "young enough that opportunities already taken in other cities are still here.

"If I wanted to get out of this business and into another one," he adds, "I'd go to a city slightly further along than Atlanta, see what they've got that we don't have yet, and then come back and do it here, because our growth potential seems about limitless."

NEW HAMPSHIRE: PROSPERITY BY PROXIMITY

Every four years the Presidential primary parade rolls through New Hampshire like some wayward circus train, inspiring dozens of national news features about this quaint little state somewhere to the north of Boston that turns farmers into political forecasters and political nobodies into front-runners. Often these stories create the impression that New Hampshire residents don't do much between campaigns except make George McGovern buttons and shovel snow. Not so. Truth is, this little nobody of a state (population just now reaching 1 million) is a legitimate front-runner in the national campaign to generate jobs and create growth companies. And it isn't just because Rather, Brokaw, Jennings, et al. book up all the hotel suites six months in advance.

"If you want to look at the macro issues for New Hampshire," says Rick Barber, president of Satter Cos. of New England, a real estate development firm in Lincoln, N.H., "start with the overall strength of the New England economy, because that's really the prime for our pump. Boston is one of the most vigorously growing cities in the country, and New Hampshire is incredibly well positioned to capitalize on conditions like taxes and housing that can make that city unappealing to start a company in."

Barber, former director of economic development under governors Hugh Gallen and John Sununu, has worked both sides of the public-policy fence. He believes that what states try to do in the way of generat-

PHOTOGRAPHS/ TOP: DON B. STEVENSON, MIDDLE: ROGER ALLEN GRIGG, BOTTOM: STU ROSNER

BETTER BOAT BUILDING
Or, What's a State to Do?

She was the luxury liner everybody wanted, one of the flagships of America's new industrial fleet. When General Motors Corp. launched a national lottery for its Saturn plant location site in 1985, more than 30 states became ticket-holders in the $5-billion, 6,000-job sweepstakes. For eventual winner Tennessee, the loot is yet to be counted; like the *Titanic*, however, the great Saturn treasure hunt was really a relic of a bygone era. As much as states still covet grand vessels like Saturn, they have also learned that larger fleets and better shipyards add up to sounder insurance policies against stormy economic weather.

"A state can't simply identify one or two things and say, 'This will fix the economy,'" says Scott Fosler, vice-president and director of government studies of the Committee for Economic Development, a research organization in Washington, D.C. "It needs a wide range of [initiatives] that interact with each other. That's why you see the shift now away from attracting outside industries to promoting entrepreneurial climates within states."

James Gollub, senior policy analyst at SRI International, expands on the concept. States are beginning to look at their economic environments, he says, "like asset portfolios they can watch over and invest in appropriately. Government can do things an individual market can't. Good economic infrastructure helps industries adapt more effectively."

What's new about the current climate is that states are beginning to recognize, and act on, all the elements of good economic infrastructure—tax policies, regulatory climates, transportation facilities, educational systems, and so on. As part of their overall economic development strategies, for instance, such states as Alabama, Florida, Texas, Arkansas, North Carolina, and South Carolina are pouring unprecedented sums into public education in general and vocational-technical education in particular. Tennessee has made the same commitment, a factor GM cited in sending Saturn there. Still others hope to emulate such successful technology-transfer programs as Pennsylvania's Ben Franklin Partnership and Ohio's Thomas Edison Program, which match academic resources and researchers with support systems for launching commercial technology ventures.

Gollub points out, however, that states can take other measures that don't necessarily require spending big bucks. For example: identifying market opportunities and/or capital resources, then brokering this information to the business community; initiating regulatory changes in banking, insurance, and telecommunications; and establishing loan guarantees, loan-loss reserves, and revolving investment pools. Robert Friedman, of the Washington-based Corporation for Enterprise Development, adds that it's not so much individual initiatives that count as "putting them together in a context." What used to be thought of as "social" policies—education, welfare programs, and the like—are being combined with purely economic policies, and the whole is greater than the sum of the parts.

Herman Leonard, associate professor of public policy at Harvard University's Kennedy School of Government, agrees. Once, he remembers, he saw a "Doonesbury" cartoon in which Vice-President George Bush repeated the old saw that a rising tide raises all boats, and was challenged with the question, "What if you don't *have* a boat?"

"Good economic policy," says Leonard, "is making sure *everyone* has a boat."

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ing growth doesn't amount to a hill of beans compared with larger economic forces at work in the region. This is a fairly common opinion in New Hampshire, where, as one Concord state official puts it, "We allow the entrepreneur to succeed, or fail, fairly easily here, and we do that three ways: by minimizing the downside risks, by letting him keep more of his income, and by not plowing taxpayer dollars into private ventures." To Barber's mind, the user-friendly scale of doing business in New Hampshire is of inestimably more value to a growth economy than any single state initiative.

"State venture capital pools are great," says Barber, "but most entrepreneurs would rather be able to take a regulatory issue to the statehouse and be confident they can work something out. I do business in both Vermont and New Hampshire—both small, rural New England states. The difference in their attitudes, however, is like night and day." On the chart, the difference between these otherwise similar states is 17 places.

The third macro issue, Barber adds, is a $1.5-billion annual tourist trade, a boon helped, no doubt, by the state's quadrennial exposure on network TV. That and the absence of a state sales tax brings in plenty of visitors. "People drive here from New York and Connecticut," Barber points out, "leave their money, but don't put their kids in our schools. Everything else flows from those three factors."

Plenty of states can boast proximity to growth, a good business climate, and a healthy degree of tourism. New Hampshire's peculiar success has been to mix the three ingredients together and come up with a diversified economy. The state's 22.3% rise in employment is second best on the '86 list. So diversified has that employment growth been that in the period from 1981 to 1984, New Hampshire ranked in the top five nationally in four distinct job-growth categories: manufacturing (5.7%), nonmanufacturing (14.1%), trade (17.7%), and service (18.6%). Nor does the state depend on a few large employers. In New Hampshire, companies with fewer than 100 workers account for 54% of all employment and 95% of all business establishments.

The Sandwich Research Group Inc., a firm providing market-research and strategic-planning services for several New Hampshire–based companies, is located in tiny Center Sandwich, N.H. Founder and chairman Jourdan Houston likes to say that she and her company are "right on the trailing edge." By "the trailing edge," Houston explains, she not only means that her state follows Boston's lead, but that it offers a wide-open market to small service firms like hers, which face little competition from larger, more entrenched firms statewide.

"A lot of us started right in the middle of the last recession and are still around," says Houston. "I'm not sure that would be true in the real world. Then again, I'm not sure that this *isn't* the real world, after all."

Real enough—and getting smaller all the time. For Doug Treat, being on the trailing edge means sitting in the driver's seat. When he moved Yankee Concepts to Center Ossipee a year ago, forsaking a much tonier location in Manchester's spanking new Technology Center, Treat's main concern was how to save cash in a heavily debt-financed business (after moving, Yankee Concepts's square-footage costs dropped from $12 to $3). Now, says Treat, his dream is to help build an alternative-model industrial park in Center Ossipee, one that comprises small technology companies like his that can play in national markets without having to sit in the mainstream.

"Give me a telephone line and a Federal Express drop," he smiles, "and the rest of the country is mine." ☐

Research assistance for this report was provided by Karen E. Angeline, Debra Rosenberg, and Lilia Wiener. The chart on page 58 was compiled by special projects editor Sara Baer-Sinnott.